

Reynolds Primary Care

5/23/2021

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SAFETY DATA SHEET

Creation Date 17-Nov-2015

Revision Date 20-Feb-2018

Revision Number 4

1. Identification

Product Name 10% Neutral Buffered Formalin

Cat No. : 22-110-761; 22-110-757; 22-110-758; 22-110-759; 22-110-760;
22-046-333; 22-046-324; 22-046-335; 22-046-327; 22-046-337;
22-046-329; 22-046-331; 22-050-258; 22-050-136; 22-050-137;
22-050-138; 22-050-139; 22-050-104; 22-050-105; 22-110-869;
22-110-614; 22-220-685; 22-220-686; 22-220-682; 22-220-683;
22-220-684; 22-050-196; 22-110-664; 22-110-873; 22-045-408;
22-045-400; 22-045-401; 22-045-402; 22-110-689; 22-045-403,
22-045-405, 032-059, 032-060, 005-500, 011-120, 111-123, 245-684,
245-685, 253-998, 305-510, 316-154, 316-155, 316-156, 426-796,
426-797, 427-098

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Richard Allan Scientific
A Subsidiary of Thermo Fisher Scientific
4481 Campus Drive
Kalamazoo, MI 49008
Tel: (800) 522-7270

Emergency Telephone Number

Chemtrec US: (800) 424-9300
Chemtrec EU: 001 (202) 483-7616

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 1
Target Organs - Respiratory system, Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney, Liver, spleen, Blood.	

Label Elements

Signal Word

Danger

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Hazard Statements

Causes serious eye damage
 Causes skin irritation
 May cause respiratory irritation
 May cause drowsiness or dizziness
 May cause an allergic skin reaction
 May cause cancer
 Suspected of causing genetic defects
 Causes damage to organs
 May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Do not breathe dust/fume/gas/mist/vapors/spray
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area

Response

IF exposed: Call a POISON CENTER or doctor/physician

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Skin

IF ON SKIN: Wash with plenty of soap and water
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician

Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

WARNING. Cancer - <https://www.p65warnings.ca.gov/>.

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Water	7732-18-5	94 - 95
Formaldehyde	50-00-0	3.5 - 4
Methyl alcohol	67-56-1	1.2
Sodium phosphate dibasic	7558-79-4	< 1

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Sodium phosphate, monobasic	7558-80-7	< 1
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4. First-aid measures

General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Most important symptoms and effects	Causes eye burns. May cause allergic skin reaction. Breathing difficulties. . Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	No information available
Flash Point	> 93.3 °C / > 199.9 °F
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Hazardous Combustion Products

Formaldehyde Methanol Carbon monoxide (CO) Carbon dioxide (CO₂)

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health
3

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to
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Environmental Precautions safe areas. Keep people away from and upwind of spill/leak. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling Use only under a chemical fume hood. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Do not ingest.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Formaldehyde	TWA: 0.1 ppm STEL: 0.3 ppm	(Vacated) TWA: 3 ppm (Vacated) STEL: 10 ppm (Vacated) Ceiling: 5 ppm TWA: 0.75 ppm STEL: 2 ppm	IDLH: 20 ppm TWA: 0.016 ppm Ceiling: 0.1 ppm	Ceiling: 2 ppm Ceiling: 3 mg/m ³
Methyl alcohol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m ³ (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m ³ Skin TWA: 200 ppm TWA: 260 mg/m ³	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 310 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tightly fitting safety goggles.

Skin and body protection Long sleeved clothing.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Clear Colorless
Odor	Characteristic formaldehyde
Odor Threshold	No information available

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pH	7
Melting Point/Range	No data available
Boiling Point/Range	Not applicable
Flash Point	> 93.3 °C / > 199.9 °F
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity	No information available
Solubility	miscible
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	Solution

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents, Strong acids, Strong bases
Hazardous Decomposition Products	Formaldehyde, Methanol, Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information	No acute toxicity information is available for this product
Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Vapor LC50	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	Not listed	Not listed
Formaldehyde	500 mg/kg (Rat)	LD50 = 270 mg/kg (Rabbit)	0.578 mg/L (Rat) 4 h
Methyl alcohol	Calc. ATE 60 mg/kg LD50 > 1187 – 2769 mg/kg (Rat)	Calc. ATE 60 mg/kg LD50 = 17100 mg/kg (Rabbit)	Calc. ATE 0.6 mg/L (vapours) or 0.5 mg/L (mists) LC50 = 128.2 mg/L (Rat) 4 h
Sodium phosphate dibasic	LD50 = 17 g/kg (Rat)	Not listed	Not listed
Sodium phosphate, monobasic	LD50 = 8290 mg/kg (Rat)	LD50 > 7940 mg/kg (Rabbit)	Not listed

Toxicologically Synergistic Products	No information available
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	Irritating to eyes, respiratory system and skin
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Sensitization No information available**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Formaldehyde	50-00-0	Group 1	Known	A1	X	A2
Methyl alcohol	67-56-1	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium phosphate dibasic	7558-79-4	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium phosphate, monobasic	7558-80-7	Not listed	Not listed	Not listed	Not listed	Not listed

*IARC: (International Agency for Research on Cancer)**NTP: (National Toxicity Program)**ACGIH: (American Conference of Governmental Industrial Hygienists)**Mexico - Occupational Exposure Limits - Carcinogens**IARC: (International Agency for Research on Cancer)**Group 1 - Carcinogenic to Humans**Group 2A - Probably Carcinogenic to Humans**Group 2B - Possibly Carcinogenic to Humans**NTP: (National Toxicity Program)**Known - Known Carcinogen**Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen**A1 - Known Human Carcinogen**A2 - Suspected Human Carcinogen**A3 - Animal Carcinogen**ACGIH: (American Conference of Governmental Industrial Hygienists)**Mexico - Occupational Exposure Limits - Carcinogens**A1 - Confirmed Human Carcinogen**A2 - Suspected Human Carcinogen**A3 - Confirmed Animal Carcinogen**A4 - Not Classifiable as a Human Carcinogen**A5 - Not Suspected as a Human Carcinogen***Mutagenic Effects** Mutagenic effects have occurred in humans.**Reproductive Effects** Experiments have shown reproductive toxicity effects on laboratory animals.**Developmental Effects** Developmental effects have occurred in experimental animals.**Teratogenicity** Teratogenic effects have occurred in experimental animals.**STOT - single exposure** Respiratory system Central nervous system (CNS)**STOT - repeated exposure** Kidney Liver spleen Blood**Aspiration hazard** No information available**Symptoms / effects, both acute and delayed** Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting**Endocrine Disruptor Information** No information available**Other Adverse Effects** Tumorigenic effects have been reported in experimental animals. The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.**12. Ecological information****Ecotoxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. Contains a substance which is: Toxic to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Formaldehyde	Not listed	Leuciscus idus: LC50 = 15 mg/L 96h	Not listed	EC50 = 20 mg/L 96h EC50 = 2 mg/L 48h
Methyl alcohol	Not listed	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min	EC50 > 10000 mg/L 24h

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			EC50 = 43000 mg/L 5 min	
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Persistence and Degradability Miscible with water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility . Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Formaldehyde	-0.35
Methyl alcohol	-0.74

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Formaldehyde - 50-00-0	U122	-
Methyl alcohol - 67-56-1	U154	-

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Water	X	X	-	231-791-2	-		X	-	X	X	X
Formaldehyde	X	X	-	200-001-8	-		X	X	X	X	X
Methyl alcohol	X	X	-	200-659-6	-		X	X	X	X	X
Sodium phosphate dibasic	X	X	-	231-448-7	-		X	X	X	X	X
Sodium phosphate, monobasic	X	X	-	231-449-2	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold
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			Values %
Formaldehyde	50-00-0	3.5 - 4	0.1
Methyl alcohol	67-56-1	1.2	1.0

SARA 311/312 Hazard Categories See section 2 for more information**CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Formaldehyde	X	100 lb	-	-
Sodium phosphate dibasic	X	5000 lb	-	-

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Formaldehyde	X		-
Methyl alcohol	X		-

OSHA Occupational Safety and Health Administration

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Formaldehyde	2 ppm STEL 0.5 ppm Action Level 0.75 ppm TWA	TQ: 1000 lb

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Formaldehyde	100 lb	100 lb
Methyl alcohol	5000 lb	-
Sodium phosphate dibasic	5000 lb	-

California Proposition 65

This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Formaldehyde	50-00-0	Carc. (Gaseous only)	40 µg/day	Carcinogen
Methyl alcohol	67-56-1	Developmental	-	Developmental

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-
Formaldehyde	X	X	X	X	X
Methyl alcohol	X	X	X	X	X
Sodium phosphate dibasic	X	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): Y
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Formaldehyde	11250 lb STQ (solution)
Sodium phosphate, monobasic	2000 lb STQ

Other International Regulations

Mexico - Grade

Slight risk, Grade 1

16. Other information**Prepared By**

Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com Richard Allan Scientific
A Subsidiary of Thermo Fisher Scientific
Tel: (800) 522-7270

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20-Feb-2018

Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



Revision Date: 02-01-2017

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Nephron Pharmaceuticals Corporation
 4500 12th Street Extension
 West Columbia, SC 29172-3025

(803) 569-2800
 (800) 443-4313 (24 hour contact)

PRODUCT NAME: Albuterol Sulfate Inhalation Solution, 0.042%* and 0.021%*
 potency expressed as albuterol, 1.5mg(0.042%) or 0.75mg (0.021%) 3mg albuterol sulfate
 CHEMICAL NAME: α^1 -[tert-butylamino)-methyl]-4-hydroxy-m-xylene- α - α' -diol sulfate (2:1) (salt)
 INN: Salbutamol
 SUBSTANCE CLASS: Benzyl alcohol derivative: bronchodilator
 INTENDED USE: Pharmaceutical product used as bronchodilator

SECTION 2: HAZARD(S) IDENTIFICATION

The following adverse effects have been reported with medicinal use of Albuterol Sulfate Inhalation Solution, 0.042% or 0.021% may accompany unintentional exposure in sufficient dose: fine muscle tremors, muscle cramps, nausea/vomiting, headache, dizziness, nervousness, heartburn, and rapid pulse, palpitations, and increased blood pressure. Extremely rapid heartbeat, seizures, low serum potassium levels, and worsening of the symptoms of pre-existent cardiovascular (heart and blood vessel) conditions and diabetes are possible. Hypersensitivity reactions such as hives, skin rash, constriction of the air passages in the lungs, and swelling involving the skin and mucous membranes have been reported. (See Section 11, "Toxicological Information")

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

NAME: Albuterol Sulfate
 CAS#: 51022-70-9
 % w/v 0.042% or 0.021% albuterol sulfate
 Other Limits: Not Established
 NAME: Water for Injection
 CAS# 7732-18-5

SECTION 4: FIRST AID MEASURES

If In Eyes: Flush with large amounts of cool water for at least 15 minutes. Obtain medical attention.
 If On Skin: Wash affected areas with soap and water after removing contaminated clothing. Obtain medical attention if contamination is significant and/or a skin reaction is evident.
 If Inhaled: If not breathing, give artificial respiration or CPR. If breathing is difficult, give oxygen. Obtain medical attention and remove to fresh air.
 If Ingested: If awake and able to swallow, rinse mouth with water. Never give anything by mouth if unconscious or having convulsions. Obtain medical attention.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT/TEST METHOD:	Unknown.
LEL/UEL:	Unknown.
SPECIAL PROPERTIES RELATED TO FIRE HAZARD:	None.
STORAGE OR HANDLING CONDITIONS TO BE AVOIDED:	Extreme Heat.
EXTINGUISHING MEDIA:	Water Spray, Multipurpose Dry Chemical.
FIRE-FIGHTING PROCEDURES:	Wear full protective clothing and use self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES**SPILL RESPONSE PROCEDURES (Liquid, Solid, Gas/Vapor):**

Protective equipment may be necessary for spills, (See Section 8, "Exposure Controls / Personal Protection" for guidance).

For small quantities associated with normal therapeutic use, collect spillage and transfer to a closed waste container for disposal. For large or bulk quantities, collect spillage by carefully sweeping or wiping and place in a labeled, sealed container for disposal. Wash spill area (floor or other contact surfaces) with a suitable cleaning solvent, like ethanol.

SECTION 7: HANDLING AND STORAGE

HANDLING:	Avoid contact with eyes, skin, and clothing.
STORAGE:	Protect from light and excessive heat. Store between 36° and 77° F. Discard if solution becomes discolored.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: No special ventilation required.

PERSONAL PROTECTION:

Respiratory:	Not required under normal conditions of therapeutic use. See Section 5 "Fire-Fighting Measures" for respiratory protection in the event of a fire.
Eye:	Not required for recommended dosage and administration. Workers should wear adequate eye protection if splash hazard exists.
Clothing:	Adequate protective clothing should be worn to prevent occupational skin contact.
Gloves:	When routine handling or spill cleanup may result in skin contact, impermeable (e.g., latex) gloves should be worn.
Work Practices:	Special care should be taken to ensure that contaminated clothing, equipment and work surfaces are properly cleaned after use. Wash hands and other areas of skin contact thoroughly after handling this material. Contaminated clothing should be cleaned or disposed of.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Clear, colorless and odorless.
PHYSICAL STATE:	Liquid.
MELTING POINT:	Not determined.
BOILING POINT:	Not determined.
SOLUBILITY/MISCIBILITY (%w/v):	Not determined.

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable.
CONDITIONS TO AVOID:	Not determined.
INCOMPATIBILITY WITH OTHER MATERIALS:	Not determined. No known incompatibilities have been identified.

for albuterol sulfate, the active ingredient in Albuterol Sulfate Inhalation Solution, 0.042% or 0.021%.

HAZARDOUS DECOMPOSITION PRODUCTS:

Hazardous decomposition products have not been determined. Thermal decomposition products of albuterol sulfate, the active ingredient, include toxic and/or corrosive oxides of nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

THE RISK OF HEALTH HAZARDS MAY BE REDUCED WHEN ALBUTEROL SULFATE INHALATION SOLUTION, 0.5 IS HANDLED IN UNIT DOSAGE FORM.

PHARMACOLOGICAL ACTIVITY:

The active component is albuterol sulfate. Albuterol sulfate is a β_2 -adrenergic bronchodilator used for the therapeutic effect of bronchial smooth muscle relaxation. This product is used for the prevention and relief of bronchospasm in patients with reversible obstructive airway disease (asthma) and for acute attacks of bronchospasm.

OCCUPATIONAL EXPOSURE LIMITS:

For albuterol sulfate, the estimated safe working level is an eight-hour time-weighted average (TWA) of 0.010mg/m³ or 10 mcg/m³.

ACUTE TOXICITY:

Overexposure to albuterol sulfate in the occupational setting may result in the same adverse effects which have been observed when albuterol sulfate is used medically. (See "Repeat Dose Toxicity" and "Clinical Safety", below). Albuterol sulfate may be absorbed following ingestion, inhalation, and to a limited extent, through the skin.

REPEAT DOSE TOXICITY:

When used medically the following adverse effects have been reported: fine muscle tremors (especially the hands), muscle cramps, nausea or vomiting, headache, vertigo (dizziness), nervousness, heartburn, and rapid pulse, palpitations, and increased blood pressure. Hypersensitivity reactions (ranging from mild to life-threatening), such as urticaria (hives), skin rash, bronchospasm (constriction of the air passages in the lungs), and angioedema (swelling involving the skin and mucous membranes) have rarely occurred. In addition, albuterol sulfate may cause significant changes in blood pressure, extremely rapid heartbeat, seizures, low potassium levels, and may exacerbate the symptoms of pre-existent cardiovascular (heart and blood vessel) conditions and diabetes.

IRRITATION:

Albuterol sulfate causes eye irritation; avoid contact with the eyes. Albuterol sulfate is irritating to the nose and throat.

SENSITIZATION:

Rarely, exposure to albuterol sulfate can cause an allergic rash with redness and itching of the skin. Exposure by inhalation can cause an allergic rash, difficulty breathing and swelling of the face and airways.

REPRODUCTIVE EFFECTS:

Albuterol sulfate causes birth defects in mice. Rare reports of cleft palate and limb defects have been received in offspring of patients being treated with albuterol sulfate. There are no adequate and well-controlled studies of the effects of albuterol sulfate in pregnant women. Albuterol sulfate should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. For recommended dosage and administration, Albuterol Sulfate Inhalation Solution, 0.042% or 0.021% is classified as "Pregnancy Category C". It is not known whether this drug is excreted in human milk. A decision should be made whether to discontinue nursing or to discontinue using the drug, taking into account the importance of the drug to the mother. Precautions should be taken to limit the exposure to Albuterol Sulfate Inhalation Solution, while pregnant or nursing: medical evaluation of exposure and attention to compliance with standard operating procedures and/or other workplace health and safety directives is advised.

Albuterol Sulfate Inhalation Solution, 0.042% and 0.021%

Effective Date: 02-01-2017

GENOTOXICITY:	There is no evidence that albuterol sulfate is mutagenic (causing changes in genetic material) or impairs fertility in standard tests.
CARCINOGENICITY:	Albuterol sulfate was not carcinogenic in standard tests with mice and hamsters. Albuterol sulfate causes benign tumors to rats treated daily for 2 years with doses which are much greater than the recommended maximum dose for human medical use. The relevance of this finding to humans is not known.
CLINICAL SAFETY:	Individuals known to be hypersensitive to β -adrenergic agents like albuterol sulfate should not be exposed. Persons with cardiovascular disorders (including coronary artery disease, heart rhythm abnormalities and high blood pressure), seizure disorders (epilepsy) hyperthyroidism, or diabetes may experience worsening of symptoms from occupational exposure. Also, persons using Albuterol Sulfate Inhalation Solution, or other medications in the same therapeutic class (β_2 -adrenergic receptor agonists), or taking monoamine oxidase inhibitors or tricyclic antidepressants, may have increased sensitivity to the effects of albuterol sulfate in the occupational setting.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:	Albuterol compartmentalizes into the aquatic environment.
ENVIRONMENTAL EFFECTS:	Albuterol is not readily biodegradable in water or soil and is unlikely to bioaccumulate. It has toxicity to receptors in the aqueous environment at levels greater than 83.2 mg/L.
ENVIRONMENTAL TEST RESULTS:	

SECTION 13: DISPOSAL CONSIDERATIONS

STUDY NAME	RESULTS
Water Solubility	24.5% w/v at pH 7
Hydrolysis Rate	Does not hydrolyze
Vapor Pressure	2×10^{-5} Pascals at 25° C
Dissociation Constant	pKa = 9.14
n-Octanol/Water Partition Coefficient	1.7×10^{-3} at pH 7
UV/Visible Spectrum	15300 at 225 nm water 1500 at 225 nm in HCl 2400 at 244 nm in NaOH
Aerobic Biodegradation (soil)	Partial biodegradation in soil 38.7% maximum in clay loam
Aerobic Biodegradation (water)	Not readily biodegradable
Soil Adsorption/Desorption	Low adsorption <25%
Activated sludge respiration inhibition test	>830 mg at 3 hours
Five day bacterial inhibition	No effect at 18.5 mg/L
Acute toxicity to Daphnia	LC ₅₀ = 243 mg at 48 hours No effect 83.2 mg/L

Albuterol Sulfate Inhalation Solution, 0.042% and 0.021%

Effective Date: 02-01-2017

SECTION 14: TRANSPORT INFORMATION

Component 1 or Formulation 1: Albuterol Sulfate Inhalation Solution 0.042% or 0.021%
 Proper Shipping Name: Pharmaceutical for Interstate Commerce

IATA/ICAO

Proper Shipping Name: Not Regulated

IMDG

Proper Shipping Name: Not Regulated

RQ: None Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

EC PACKAGING AND LABELING FOR SUPPLY: Not applicable.

OTHER LEGISLATION: Not regulated.

SECTION 16: OTHER INFORMATION

REVISION DATE: 02-06-2015

REVISION DATE: 07-22-2004

REVISION DATE: 08-21-2014

SUPERSEDES: 01-23-2003

SUPERSEDES: 07-22-2004

TO THE BEST OF OUR KNOWLEDGE THE INFORMATION CONTAINED HEREIN IS ACCURATE AS OF THE DATE HEREOF. ANY DETERMINATION AS TO THE SUITABILITY OF THE PRODUCT FOR ANY PARTICULAR PURPOSE, ITS SAFE USE OR DISPOSAL, SHALL BE THE RESPONSIBILITY OF THE USER. THE INFORMATION CONTAINED HEREIN IS IN NO WAY INTENDED TO SUPPLEMENT, MODIFY, OR SUPERSEDE THE INFORMATION PROVIDED IN THE PRODUCT PACKAGE INSERT WITH RESPECT TO THE USE OF THE PRODUCT FOR MEDICAL PURPOSES. PLEASE REFER TO THE PRODUCT PACKAGE INSERT FOR INFORMATION REGARDING THE USE OF THE PRODUCT FOR MEDICAL PURPOSES.



Ammonia Inhalant Solution

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 06/02/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Ammonia Inhalant Solution

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : OTC drug used to treat or prevent fainting
Use of the substance/mixture : For professional use only

1.3. Details of the supplier of the safety data sheet

James Alexander Corporation
845 Route 94 Blairstown
NJ 07825

Tel: (908) 362-9266

Note: The CHEMTREC emergency number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to JAC at (908) 362-9266.

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225
Skin Corr. 1B H314
Eye Dam. 1 H318
Carc. 1A H350

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapour
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H350 - May cause cancer

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe dust, fume, gas, mist, spray, vapours
P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective clothing, protective gloves
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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P308+P313 - IF exposed or concerned: Get medical advice/attention
 P310 - Immediately call a POISON CENTER or doctor/physician
 P321 - Specific treatment (see on this label)
 P363 - Wash contaminated clothing before reuse
 P370+P378 - In case of fire: Use dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂), water spray, sand, earth for extinction
 P403+P235 - Store in a well-ventilated place. Keep cool
 P405 - Store locked up
 P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Ethyl alcohol	(CAS No) 64-17-5	30 - 40	Flam. Liq. 2, H225 Carc. 1A, H350
Ammonia	(CAS No) 7664-41-7	15 - 20	Flam. Gas 2, H221 Compressed gas, H280 Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1B, H314

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing stops, give artificial respiration. In case of breathing difficulties administer oxygen. by trained personnel. Seek medical attention immediately.
- First-aid measures after skin contact : Immediately flush skin with plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Do not rub the skin and eyes after direct contact with the product. Seek medical attention immediately. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately get medical attention.
- First-aid measures after ingestion : If the person is fully conscious, make him/her drink water. Never give an unconscious person anything to drink. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. If swallowed, rinse mouth with water (only if the person is conscious).

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes severe skin burns and eye damage. This material or its emissions may affect the central nervous system and/or aggravate pre-existing disorders.
- Symptoms/injuries after inhalation : May cause cancer by inhalation. Prolonged and repeated inhalation of decomposition products may cause a pulmonary oedema. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination. Irritating to the respiratory system, may cause throat pain and cough. Difficulty in breathing.
- Symptoms/injuries after skin contact : May cause severe burns.
- Symptoms/injuries after eye contact : Causes serious eye damage. Can cause blindness.
- Symptoms/injuries after ingestion : May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Alcohol resistant foam. Dry powder. Carbon dioxide. Sand.
 Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
 Explosion hazard : May form flammable/explosive vapour-air mixture.
 Reactivity : Thermal decomposition generates : Corrosive vapours. Reacts violently with acids. An exothermic reaction may occur.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
 Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.
 Other information : Containers may swell and Burst during a fire due to internal pressure caused by heat. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions. Personnel may be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Eliminate all ignition sources if safe to do so. Use special care to avoid static electric charges. No naked lights. No smoking. Stop leak if safe to do so. No action shall be taken involving any personal risk or without suitable training. Wear protective clothing. For further information refer to section 8 : Exposure-controls/personal protection.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
 Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Consult the appropriate authorities about waste disposal. Ensure all national/local regulations are observed.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
 Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Use personal protective equipment as required. Provide good ventilation in process area to prevent formation of vapour. Do not breathe gas, fumes, vapour or spray. No naked lights. No smoking. Use only non-sparking tools. Never use pressure to empty container. Ground/bond container and receiving equipment. Take care to allow internal pressure to escape from container before releasing closures. Remove closure carefully; internal pressure may be present. Keep closure up to prevent leakage. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
 Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Ammonia Inhalant Solution

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7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Ensure the ventilation system is regularly maintained and tested. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. A washing facility/water for eye and skin cleaning purposes should be present. Comply with applicable regulations.
- Storage conditions : Keep only in the original container in a cool well ventilated place. Keep in fireproof place. Keep container tightly closed. Protect containers against physical damage. Detached outside storage is preferable. Inside storage should be in an NFPA approved flammable liquids storage room or cabinet. Store in corrosion-proof area at temperatures below 77 degrees F (25°C). Store away from direct sunlight or other heat sources.
- Incompatible materials : Avoid mixing with acids, most common metals, strong oxidizing agents, brass, zinc, chlorine, aluminum, copper, bronze, mercury, dimethyl sulfate and acetyl chloride.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ammonia (7664-41-7)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA ACGIH	ACGIH STEL (ppm)	35 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	35 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm
Ethyl alcohol (64-17-5)		
USA ACGIH	ACGIH STEL (ppm)	1000 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1900 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. Use explosion-proof ventilating equipment.
- Personal protective equipment : Avoid all unnecessary exposure. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. For certain operations, additional Personal Protection Equipment (PPE) may be required. Protective goggles. Gloves. Protective clothing.



- Hand protection : Wear protective gloves. rubber gloves. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Eye protection : Chemical goggles or face shield.
- Skin and body protection : Wear suitable protective clothing. Chemical resistant safety shoes.
- Respiratory protection : Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals. Care must be taken to assure that any respirator chosen is capable of protecting the user from both ammonia and ethyl alcohol vapors.
- Other information : Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Colour	: Red.
Odour	: Pungent ammonia odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 35 °C (> 95 °F)
Flash point	: < 10 °C (< 50 °F - Pensky Martens Closed Cup)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.891 (Specific Gravity @ 25 °C)
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours. Reacts violently with acids. An exothermic reaction may occur.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Avoid mixing with acids, most common metals, strong oxidizing agents, brass, zinc, chlorine, aluminum, copper, bronze, mercury, dimethyl sulfate and acetyl chloride.

10.6. Hazardous decomposition products

Thermal decomposition generates : Fume. Carbon monoxide. Carbon dioxide. May release flammable gases. Corrosive vapours. Ammonia. Nitrogen oxides. release of highly flammable gases/vapours hydrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met)
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Ammonia Inhalant Solution

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Ammonia (7664-41-7)	
LD50 oral rat	350 mg/kg
LC50 inhalation rat (ppm)	2000 ppm/4h
Ethyl alcohol (64-17-5)	
LC50 inhalation rat (mg/l)	124.7 mg/l (Exposure time: 4 h)
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: May cause cancer.
Ethyl alcohol (64-17-5)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause cancer by inhalation. Prolonged and repeated inhalation of decomposition products may cause a pulmonary oedema. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination. Irritating to the respiratory system, may cause throat pain and cough. Difficulty in breathing.
Symptoms/injuries after skin contact	: May cause severe burns.
Symptoms/injuries after eye contact	: Causes serious eye damage. Can cause blindness.
Symptoms/injuries after ingestion	: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

Ammonia (7664-41-7)	
LC50 fishes 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio)
EC50 Daphnia 1	25.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	0.26 - 4.6 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
Ethyl alcohol (64-17-5)	
LC50 fishes 1	12.0 - 16.0 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	9268 - 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 2	10800 mg/l (Exposure time: 24 h - Species: Daphnia magna)

12.2. Persistence and degradability

Ammonia Inhalant Solution	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Ammonia Inhalant Solution	
Bioaccumulative potential	Not established.
Ammonia (7664-41-7)	
Log Pow	-1.14 (at 25 °C)

Ammonia Inhalant Solution

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Ethyl alcohol (64-17-5)

Log Pow	-0.32
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not re-use empty containers. Ensure all national/local regulations are observed. Consult the appropriate authorities about waste disposal.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN2924 Flammable liquids, corrosive, n.o.s. (Ammonia, Ethanol), 3, II

UN-No.(DOT) : 2924

DOT NA no. : UN2924

DOT Proper Shipping Name : Flammable liquids, corrosive, n.o.s.
(Ammonia, Ethanol)

Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid
8 - Corrosive



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

DOT Packaging Bulk (49 CFR 173.xxx) : 243

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 5 L

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Ammonia Inhalant Solution

Safety Data Sheet

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DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Additional information

Other information : No supplementary information available.

ADR

Transport document description : No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Ammonia Inhalant Solution

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	588 lb
--	--------

Ammonia (7664-41-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 302 (Specific toxic chemical listings)
Listed on SARA Section 313 (Specific toxic chemical listings)

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	100 lb
--	--------

SARA Section 302 Threshold Planning Quantity (TPQ)	500
--	-----

SARA Section 313 - Emission Reporting	1.0 % (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing)
---------------------------------------	---

Ethyl alcohol (64-17-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Ammonia (7664-41-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class E - Corrosive Material
----------------------	--

Ethyl alcohol (64-17-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--

EU-Regulations

Ammonia (7664-41-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Ethyl alcohol (64-17-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

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Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Ammonia (7664-41-7)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Poisonous and Deleterious Substances Control Law
Listed on the Canadian Ingredient Disclosure List

Ethyl alcohol (64-17-5)

Listed on IARC (International Agency for Research on Cancer)
Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on the Canadian Ingredient Disclosure List

15.3. US State regulations

Ethyl alcohol (64-17-5)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	Yes			

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Carc. 1A	Carcinogenicity, Category 1A
Compressed gas	Gases under pressure : Compressed gas
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Gas 2	Flammable gases, Category 2
Flam. Liq. 2	Flammable liquids Category 2
Skin Corr. 1B	Skin corrosion/irritation Category 1B
H221	Flammable gas
H225	Highly flammable liquid and vapour
H280	Contains gas under pressure; may explode if heated
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H331	Toxic if inhaled
H350	May cause cancer

NFPA health hazard

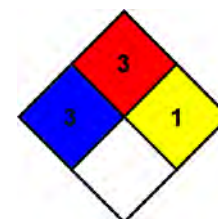
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



Ammonia Inhalant Solution

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SDS US (GHS HazCom 2012)

This Material Safety Data Sheet is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, the safe handling of chemical materials. James Alexander Corporation (JAC), expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose with respect to the product or information provided herein. All information appearing herein is based upon data obtained from the manufacturer(s) and/or recognized technical sources. While the information is believed to be accurate, JAC makes no representations as to its accuracy or sufficiency. Conditions of use are beyond JAC's control and therefore, users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein and does not relate to its use in combination with any other material or in any other process.



US - OSHA SAFETY DATA SHEET

11/24/14

Revision Date

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name BENADRYL Allergy Dye-Free LIQUI-GELS

Other means of identification

Product Code MCHC-BDRALLLG

C-1261

Synonyms Benadryl dye-free liquid gels

Benadryl liquid gels

Recommended use of the chemical and restrictions on use

Recommended Use Temporarily relieves these symptoms due to hay fever or other respiratory allergies: runny nose; sneezing; itchy, watery eyes; itching of the nose or throat.

Recommended Restrictions Temporarily relieves these symptoms due to the common cold: runny nose, sneezing.
None Known.

Details of the supplier of the safety data sheet

Supplier Address

McNeil Consumer Healthcare, Division of McNeil-PPC, Inc.
7050 Camp Hill Rd.
Fort Washington, PA
10934-2299

Emergency telephone number

Company Phone Number (215) 273-7000

24 Hour Emergency Phone Number For 24-hour emergency assistance, call the 3E Company at 1 (877)-236-9871
Provide the technician with the following product tracking code: 2277

2. HAZARDS IDENTIFICATION

Classification

Health Hazards

Not classified

Physical hazards

Not Classified.

OSHA Regulatory Status

Over the counter drugs in their solid final form (e.g. capsules, tablets or pills) are considered exempt under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, in an industrial setting where a component's occupational exposure limits may be surpassed, they can be considered hazardous.

**MCHC-BDRALLLG BENADRYL Allergy Dye-Free
LIQUI-GELS**

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Label elements

Emergency Overview

Hazard statements

This material does not meet the criteria for classification.

Hazard Symbol

None

Signal Word

None

Appearance Clear, oblong, soft, gelatin capsule printed "BENADRYL" on one side with white ink

Physical state Soft Gelatin Capsule

Odor Not available.

Precautionary Statements - Prevention

Not available

Precautionary Statements - Response

No specific first aid measures noted.

Precautionary Statements - Storage

Store at 20 -25 °C (68 - 77 °F). Avoid high humidity and excessive heat. Protect from light.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified (HNOC)

Not classified.

Other Information

Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Benadryl dye-free liquid gels
Benadryl liquid gels.

Chemical Name	CAS No.	Weight-%
Diphenhydramine Hydrochloride USP	147-24-0	1-5
Glycerin	56-81-5	1-15
Polyethylene Glycol	25322-68-3	20-40

4. FIRST AID MEASURES

First aid measures

Eye contact

In case of eye contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

Skin Contact

Should skin irritation, allergic reaction, or rash occur, remove contaminated clothing if required, then physically remove as much of the product as possible. Wash affected area with soap and water, then thoroughly flush the area with water. If irritation persists, seek medical advice.

Inhalation

If symptomatic, move to fresh air. Get medical attention if symptoms persist.

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Ingestion If symptomatic, seek medical advice. If ingestion of a large amount does occur, call a poison control center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Diphenhydramine is a potent anticholinergic agent. This activity is responsible for the side-effects of dry mouth and throat, increased heart rate, pupil dilation, urinary retention, constipation, and, at high doses, hallucinations or delirium.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Extinguish with water spray, carbon dioxide, dry chemical or material appropriate for the surrounding fire.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical

Not applicable.

Explosion data

Sensitivity to Mechanical Impact None known.

Sensitivity to Static Discharge None known.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear appropriate personal protective equipment (see Section 8).

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

If dry, vacuum and place into proper container for disposal. If wet, collect or scrape up and ensure area is thoroughly cleaned.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep only in the original container. Store at 20 - 25 °C (68 - 77 °F). Avoid high humidity and excessive heat. Protect from light. Keep away from food, drink, and animal feedingstuffs. Keep out of reach of children.

Incompatible materials

None known based on information supplied. Strong oxidizing agents.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Biological limit values

No biological limits noted for this ingredient.

Exposure Guidelines

Based on a review of animal and clinical literature, an Occupational Exposure Limit (OEL) of 139 µg/m³ is recommended as an 8-hour TWA for Diphenhydramine Hydrochloride.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerin 56-81-5	-	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction (vacated) TWA: 10 mg/m ³ mist, total particulate (vacated) TWA: 5 mg/m ³ mist, respirable fraction	-

Appropriate engineering controls

Engineering Controls

The health hazard risks of handling this material are dependent on factors, such as physical form and quantity. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels as low as reasonably achievable.

Individual protection measures, such as personal protective equipment

Eye/face protection

None required for consumer use. In laboratory, medical or industrial settings, safety glasses with side shields are recommended. The use of goggles or full face protection may be required depending on the industrial exposure setting. Contact a health and safety professional for specific information.

Skin and body protection

None required for consumer use. In laboratory, medical or industrial settings, gloves and lab coats are recommended. The use of additional personal protective equipment such as shoe coverings, gauntlets, hood or head coverings may be necessary. Contact a health and safety professional for specific information.

Hand protection

Use protective gloves. None required for consumer use. In laboratory, medical or industrial settings, gloves and lab coats are recommended. The use of additional personal protective equipment such as shoe coverings, gauntlets, hood or head coverings may be necessary. Contact a health and safety professional for specific information.

Respiratory protection

None required for consumer use. Respirators may be required for certain laboratory and manufacturing tasks if engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (where the exposure limits have not been established). Workplace risk assessments should be completed before specifying and implementing respirator usage. All respirators must conform to specifications for efficiency and performance. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134. Contact a health and safety professional or manufacturer for specific information.

Thermal hazards

Not applicable.

General Hygiene Considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

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LIQUI-GELS**

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Soft Gelatin Capsule		
Appearance	Clear, oblong, soft, gelatin capsule printed "BENADRYL" on one side with white ink	Odor	Not available.
Color	Clear	Odor threshold	Not available.

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not available.	
Melting point/freezing point	Not available.	
Boiling point / boiling range	Not available.	
Flash point	Not available.	
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Flammability Limit in Air		
Upper flammability limit:	Not available.	
Lower flammability limit:	Not available.	
Vapor pressure	Not available.	
Vapor density	Not available.	
Specific Gravity	Not available.	
Water solubility	Not available.	
Solubility in other solvents	Not available.	
Partition coefficient	Not available.	
Autoignition temperature	Not available.	
Decomposition temperature	Not available.	
Kinematic viscosity	Not available.	
Dynamic viscosity	Not available.	
Explosive properties	Not available.	
Lower explosive limit:	Not available.	
Upper explosive limit:	Not available.	
Oxidizing properties	Not available.	

10. STABILITY AND REACTIVITY

Reactivity

Stable at normal conditions.

Chemical stability

Stable.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to avoid

Low and elevated temperatures. High humidity and light.

Incompatible materials

None known based on information supplied. Strong oxidizing agents.

Hazardous Decomposition Products

Carbon oxides. Silicon oxides. Nitrogen oxides. Sodium oxides.

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11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No data available
Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Eye contact	This product is not expected to be an eye hazard.
Skin Contact	This product is not expected to be a skin hazard.
Ingestion	Unknown.

Acute Effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50	Intravenous LD50
Diphenhydramine Hydrochloride USP 147-24-0	= 500 mg/kg (Rat) = 160 mg/kg (Mouse)	= 280 mg/kg (Rat)	-	= 42 mg/kg (Rat) = 29 mg/kg (Mouse)
Glycerin 56-81-5	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h	-
Polyethylene Glycol 25322-68-3	= 28 g/kg (Rat)	> 20 mL/kg (Rabbit) > 20 g/kg (Rabbit)	-	

Acute intravenous lowest observed toxic dose (TDLo) was 5 mg/kg in rats and 1 mg/kg in mice.

Information on toxicological effects

Symptoms	Diphenhydramine is a potent anticholinergic agent. This activity is responsible for the side-effects of dry mouth and throat, increased heart rate, pupil dilation, urinary retention, constipation, and, at high doses, hallucinations or delirium.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive toxicity	Not available.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Due to the physical form of the product it is not an aspiration hazard.

Numerical measures of toxicity - Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product's components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available.

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13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Dispose in accordance with applicable federal, state, and local regulations.

Local disposal regulation

Dispose in accordance with local regulations.

Hazardous waste code

Hazardous waste codes should be determined in accordance with hazardous waste regulatory authorities

Waste from residue / unused packaging

Dispose in accordance with applicable regulations.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT

Not regulated as a hazardous material by DOT.

IATA

Not regulated as a dangerous good.

IMDG

Not regulated as a dangerous good.

**Transport in bulk according to
Annex II of MARPOL 73/78 and the
IBC Code**

This substance/mixture is not intended to be transported in bulk

15. REGULATORY INFORMATION

International Inventories

TSCA

Does not comply

DSL/NDSL

Complies

EINECS/ELINCS

Complies

ENCS

Complies

IECSC

Does not comply

KECL

Does not comply

PICCS

Does not comply

AICS

Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Over-the-counter drugs in their solid final form (e.g. tablets or pills) are considered exempt under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, in an industrial setting where a component's occupational exposure limits may be surpassed, they can be considered hazardous listed.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard

No

Chronic Health Hazard

No

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Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Drug Enforcement Administration (DEA) List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated

DEA Exempt Chemical Mixtures Code Number

Not regulated

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPS) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Safe Drinking Water Act (SDWA)

Not regulated

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations
CA State Regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Glycerin 56-81-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not available

16. OTHER INFORMATION

Revision Date

Revision Note

Not available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



CaviCide™
Date Prepared: 3/23/16

SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: CaviCide™

Product Use: Hard surface cleaner and disinfectant

Manufacturer: METREX™ RESEARCH
28210 Wick Rd
Romulus, MI 48174
U.S.A.

Information Phone Number: 1-800-841-1428 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date Of Preparation/Revision: 3/23/16

Section 2. Hazards Identification

GHS / HAZCOM 2012 Classification:

Flammable Liquid Category 3

Eye Irritation Category 2A

Specific Target Organ Toxicity Single Exposure Category 3 (Narcotic effects)

Warning!



Hazard Phrases

Flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Prevention:

Keep away from heat, sparks, open flames, hot surfaces – No smoking.

Keep container tightly closed.

Use explosion-proof electrical, ventilating and light equipment.

Take precautionary measures against static discharge.

Avoid breathing vapors.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear eye protection.

Response:



CaviCide™
Date Prepared: 3/23/16

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical attention.

In case of fire: Use water spray or fog, alcohol-resistant foam, carbon dioxide or dry chemical to extinguish.

Storage

Store in a well ventilated place. Keep cool.

Disposal

Dispose of contents and container in accordance with local and national regulations.

Other hazards: None

Section 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Water	7732-18-5	70-80%
Isopropanol	67-63-0	17.2%
Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)	111-76-2	1-5%
Diisobutylphenoxyethoxyethyldimethylbenzyl ammonium chloride	121-54-0	0.28%

Section 4. First Aid Measures

Inhalation: Move to fresh air if effects occur and seek medical attention if effects persist.

Skin Contact: Remove contaminated clothing. Wash all affected and exposed areas with soap and water. If skin irritation or redness develops and persists, seek medical attention.

Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Ingestion: If swallowed, get medical advice by calling a Poison Control Center or hospital emergency room. If advice is not available, take victim and product container to the nearest emergency treatment center or hospital. Do not attempt to give anything by mouth to an unconscious person.

Most Important symptoms and effects, both acute and delayed: Causes serious eye irritation. Inhalation of concentrated vapors may cause irritation of the eyes, nose and throat and dizziness and drowsiness.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention is not generally required.



CaviCide™
Date Prepared: 3/23/16

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use water spray or fog, alcohol-resistant foam, carbon dioxide or dry chemical. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: Flammable liquid and vapor. May form explosive mixtures in air at temperatures at or above the flashpoint. Flammable vapors may collect in confined areas. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flashback. Fire exposed containers may rupture explosively.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Environmental Precautions: Avoid release to the environment.

Methods and Materials for Containment and Cleaning up: Eliminate all ignition sources. Ventilate area. Use explosion-proof equipment if large amounts are released. Stop leak if it is safe to do so and move containers from the spill area. Collect material with an inert absorbent material and place in appropriate, labeled container for disposal.

Section 7. Handling and Storage

Precautions for Safe Handling: Do not get in eyes or on clothing. Wear appropriate eye protection when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Flammable liquid and vapor. Keep away from heat, sparks, open flames and all other sources of ignition.

Do not smoke in storage or use areas. Keep containers closed when not in use. Do not reuse empty containers.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well ventilated area away from heat, oxidizers and all sources of ignition. Do not contaminate water, food or feed by storage.

Empty containers retain product residues and may be hazardous. Do not flame cut, drill, weld, etc. on or near empty containers, even empty.



CaviCide™
Date Prepared: 3/23/16

Section 8. Exposure Controls / Personal Protection

Exposure Limits

Chemical	Exposure Limit
Water	None Established
Isopropanol	200 ppm TWA, 400 ppm STEL ACGIH TLV 400 ppm TWA OSHA PEL
Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)	20 ppm TWA ACGIH TLV 50 ppm TWA OSHA PEL (skin)
Diisobutylphenoxyethoxyethyl dimethyl benzylammonium chloride	None Established

Appropriate Engineering Controls: General ventilation should be adequate for normal use. For operations where the exposure limits may be exceeded, mechanical ventilation such as local exhaust may be needed to minimize exposure. Use explosion proof electrical equipment and wiring where required.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, an approved respirator with an organic vapor cartridge or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with applicable regulations and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Impervious gloves such as butyl rubber or nitrile are recommended for operations which may result in prolonged or repeated skin contact.

Eye Protection: Splash proof goggles, face shield, or safety glasses are recommended to prevent eye contact.

Skin Protection: Wear protective clothing if needed to avoid prolonged/ repeated skin contact. Contaminated clothing should be removed and laundered before re-use.

Hygiene measures: Suitable eye wash and washing facilities should be available in the work area.

Section 9. Physical and Chemical Properties

Appearance:	Clear liquid.	Odor:	Alcohol
Odor Threshold:	0.001 ppm (ethylene glycol monobutyl ether)	pH:	11.0-12.49
Melting/Freezing Point:	Not determined	Boiling Point/Range:	Not determined
Flash Point:	28.3°C (83°F)	Evaporation Rate:	Not determined
Flammability: (Solid, Gas)	Not applicable	Flammability Limits:	LEL: 2% UEL: 12.7%
Vapor Pressure:	43.3 mmHg @ 20°C (isopropanol)	Vapor Density:	2.1 (isopropanol)
Relative Density:	0.972	Solubilities:	Completely soluble in water



CaviCide™
Date Prepared: 3/23/16

Partition Coefficient: (N-Octanol/Water)	Not determined	Autoignition Temperature:	Not determined
Decomposition Temperature:	Not determined	Viscosity:	Not determined

Section 10. Stability and Reactivity

Reactivity: Not reactive at ambient temperatures.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: Not reactive.

Conditions to avoid: Heat, sparks, flames and all other sources of ignition.

Incompatible Materials: Strong oxidizing agents, acids and strong reducing agents.

Hazardous decomposition products: Thermal decomposition will produce carbon monoxide, carbon dioxide, nitrogen oxides, amines, chlorine and hydrogen chloride.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: May cause irritation of the nose, throat and upper respiratory tract. High vapor concentrations may produce nausea, vomiting, headache, dizziness, drowsiness, weakness, fatigue, narcosis and possible unconsciousness. Not acutely toxic in rats.

Skin Contact: Prolonged or repeated exposure may cause mild irritation. No signs of toxicity or irritation were observed in a dermal toxicity study in rabbits. Non-irritating in a primary irritation study with rabbits. Negative in a skin sensitization study with guinea pigs.

Eye Contact: May cause irritation with tearing, redness and pain. Moderate irritant in an eye irritation study with rabbits. Effects reversed in 7 days.

Ingestion: Ingestion may cause gastrointestinal disturbances and central nervous system effects such as headache, dizziness, drowsiness and nausea. Not acutely toxic in rats.

Chronic Hazards: Prolonged overexposure to ethylene glycol monobutyl ether may affect liver, kidneys, blood, lymphatic system or central nervous system.

Medical Conditions Aggravated By Exposure: None currently known.

Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Acute Toxicity Values for CaviCide:

LD50 Oral Rat >5000 mg/kg, LD50 Dermal Rat >2000 mg/kg, LC50 inhalation LC50 rat >2.08 mg/L

Section 12. Ecological Information



CaviCide™
Date Prepared: 3/23/16

This product is not classified as aquatically toxic based on the GHS criteria for aquatic toxicity.

Toxicity: No toxicity data available for product.

Isopropanol: LC50 fathead minnows 11,130 mg/L/48 hr; LC50 brown shrimp 1400 mg/L/48 hr

Diisobutylphenoxyethoxyethyltrimethylbenzylammonium chloride: LC50 pimephales promelas 1.6 mg/L/96 hr, LC50 lepomis macrochirus 1.4 mg/L/96 hr.

Persistence and degradability: Isopropanol and 2-butoxyethanol are readily biodegradable in screening tests. Diisobutylphenoxyethoxyethyltrimethylbenzylammonium chloride is not readily biodegradable.

Bioaccumulative Potential: Isopropanol has an estimated BCF of 3 suggesting that the potential for bioaccumulation is low.

Mobility in Soil: Isopropanol is expected to have very high mobility in soil.

Other Adverse Effects: None known

Section 13. Disposal Considerations

Solution Disposal: Discharge residual and unused solutions in accordance with Federal, State, and local regulations. For used solution, the waste solution must be characterized by the generator and disposed of in accordance with Federal, State, and local regulations.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in accordance with hospital policy.

Section 14. Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	None	Not Regulated per alcohol exception (49CFR 173.150(e))	None	None	None
EU ADR/RID	UN1987	Alcohols, n.o.s. (Isopropanol)	3	III	None
IMDG	UN1987	Alcohols, n.o.s. (Isopropanol)	3	III	None
IATA/ICAO	UN1987	Alcohols, n.o.s. (Isopropanol)	3	III	None

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None identified

Section 15. Regulatory Information



CaviCide™
Date Prepared: 3/23/16

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Fire Hazard, Acute Health, Chronic Health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Ethylene Glycol Monobutyl Ether (Glycol Ether)	111-76-2	1-5%
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Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

US EPA Registered Pesticide: This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!

Harmful if absorbed through the skin.

Causes moderate eye irritation.

Keep out of reach of children.

International Inventories

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

Australia: All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

China: All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

European Union: All the components in this product are listed on the EINECS inventory or exempt.

Japan: All of the components in this product are listed on the Japanese Existing and New Chemical Substances (ENCS) inventory or exempt.

Korea: All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or



CaviCide™
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exempt.

Philippines: All of the components of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) or exempt.

Section 16. Other Information

Effective Date: March 23, 2016

Supersedes Date: June 1, 2015

Revision Summary: Removed prop 65 notice per exposure assessment.

The information and recommendations set forth herein are taken from sources believed to be accurate as of the date of preparation, however, METREX™ RESEARCH makes no warranty with respect to the accuracy or suitability of the recommendations, and assumes no liability to any use thereof.



SAFETY DATA SHEET

Issuing Date 10-Jan-2017

Revision Date 15-Aug-2017

Revision Number 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Clorox Healthcare® Bleach Germicidal Wipes

Other means of identification

Synonyms None

EPA Pesticide registration number 67619-12

Recommended use of the chemical and restrictions on use

Recommended Use Wipes, Disinfecting

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier The Clorox Company

Supplier Address 1221 Broadway
Oakland
CA
94612
US

Telephone 1-510-271-7000

Emergency telephone number

Emergency Telephone Number For Medical Emergencies call: 1-800-446-1014. Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance White

Physical state
Pre-Moistened Towelette
(no free liquids)

Odor Fruity, Floral, Bleach

Precautionary Statements - Prevention

Not applicable

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

21.8 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

No information available

Interactions with Other Chemicals

No information available.

Interactions with Other Chemicals

May react with bleach-containing products or other household cleaners to produce hazardous gases.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES**First aid measures****General Advice**

Show this safety data sheet to the doctor in attendance.

Eye contact

Rinse thoroughly with water as necessary. If symptoms persist, call a physician.

Skin contact

Wash with soap and water. If skin irritation persists, call a physician.

Inhalation

Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If symptoms persist, call a physician.

Ingestion

Drink 1 or 2 glasses of water. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed**Most Important Symptoms and Effects**

Irritating.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Appropriate engineering controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Pre-Moistened Towelette (no free liquids)		
Appearance	White	Odor	Fruity Floral Bleach
Color	No information available	Odor Threshold	No information available
Property	Values	Remarks	Method
pH	12 - 12.5 (liquid)	None known	
Melting / freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	No data available	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Specific Gravity	~1.0 (liquid)	None known	
Water Solubility	Completely soluble	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	0	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Explosive properties	No data available		
Oxidizing properties	No data available		

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Ammonia Acids

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	May cause irritation of respiratory tract.
Eye contact	May cause slight irritation.
Skin contact	Substance may cause slight skin irritation.
Ingestion	Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information**Information on toxicological effects**

Symptoms May cause redness and tearing of the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity No known effect based on information supplied.

Target Organ Effects Eyes. Skin. Respiratory system. Reproductive system.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

No information available

12. ECOLOGICAL INFORMATION**Ecotoxicity**

None known.

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal methods**

Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION**DOT** NOT REGULATED**TDG** NOT REGULATED**ICAO** NOT REGULATED**IATA** NOT REGULATED**IMDG/IMO** NOT REGULATED**15. REGULATORY INFORMATION****International Inventories**

TSCA

All components are listed on the TSCA Inventory

DSL

All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances above threshold limits that are regulated by state right-to-know.

EPA Pesticide registration number 67619-12

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide label

CAUTION: Liquid causes moderate eye irritation. Do not get in eyes or on clothing. Avoid contact with clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. For sensitive skin or prolonged use, wear gloves.

International Regulations

Canada

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 0	Instability 1	Physical and Chemical Hazards
HMIS	Health Hazards 1	Flammability 0	Physical Hazard 1	N/A
				Personal Protection
				A

Prepared By	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
Issuing Date	10-Jan-2017
Revision Date	15-Aug-2017
Revision Note	No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet



SAFETY DATA SHEET

Issuing Date No data available

Revision Date 25-Aug-2017

Revision Number 6

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant Wipes

Other means of identification

Synonyms None

EPA Pesticide registration number 67619-25

Recommended use of the chemical and restrictions on use

Recommended Use Wipes, Disinfecting

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier The Clorox Company

Supplier Address 1221 Broadway
Oakland
CA
94612
US

Telephone 1-510-271-7000

Emergency telephone number

Emergency Telephone Number For Medical Emergencies call: 1-800-446-1014. Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance White

Physical state
Pre-Moistened Towelette
(no free liquids)

Odor Cleaning Agent

Precautionary Statements - Prevention

Not applicable

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

19 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

Harmful to aquatic life with long lasting effects

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES**First aid measures****General Advice**

Show this safety data sheet to the doctor in attendance.

Eye contact

Rinse thoroughly with water as necessary. Get medical attention if irritation develops and persists.

Skin contact

Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation

If symptoms develop move victim to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If symptoms persist, call a physician.

Ingestion

Drink 1 or 2 glasses of water. Get medical attention if symptoms occur.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed**Most Important Symptoms and Effects**

None known.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Pre-Moistened Towelette (no free liquids)		
Appearance	White	Odor	Cleaning Agent
Color	No information available	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	2 - 3 (liquid)	None known	
Melting / freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	>93°C	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Specific Gravity	~1.0 (liquid)	None known	
Water Solubility	Completely soluble	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	0	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Explosive properties	No data available		
Oxidizing properties	No data available		

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	May cause irritation of respiratory tract.
Eye contact	May cause slight irritation.
Skin contact	Substance may cause slight skin irritation.
Ingestion	Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information**Information on toxicological effects**

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity There are no known carcinogenic chemicals in this product.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity No known effect based on information supplied.

Target Organ Effects No information available.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

No information available

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal methods**

Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION**DOT**

NOT REGULATED

TDG

NOT REGULATED

ICAO

NOT REGULATED

IATA

NOT REGULATED

IMDG/IMO

NOT REGULATED

15. REGULATORY INFORMATION**International Inventories**

TSCA

All components are listed on the TSCA Inventory

DSL

All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances above threshold limits that are regulated by state right-to-know.

EPA Pesticide registration number 67619-25

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide label

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

International Regulations**Mexico****National occupational exposure limits**

No data available

Canada**WHMIS Hazard Class**

Non-controlled

16. OTHER INFORMATION				
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NFPA	Health Hazards	1	Flammability	0	Instability	0	Physical and Chemical Hazards	-
HMIS	Health Hazards	1	Flammability	0	Physical Hazard	0	Personal Protection	A

Prepared By

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date

25-Aug-2017

Revision Note

No information available

Reference

1138497/164708.001

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet



SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Clorox® Disinfecting Wipes₁ - Citrus Blend

Other means of identification

EPA Registration Number 5813-79

Recommended use of the chemical and restrictions on use

Recommended use Moistened disinfecting wipes

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers

For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Appearance Clear, colorless liquid absorbed into white, non-woven wipes	Physical State Thin liquid absorbed into non-woven wipes	Odor Citrus, lemon, lime
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Precautionary Statements - Prevention

None

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

21.5% of the mixture consists of ingredient(s) of unknown toxicity

Other information

No information available

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Ethylene glycol monohexyl ether	112-25-4	1 - 5	*
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	85409-23-0	0.1 - 0.2	*
n-Alkyl (5% C12, 60% C14, 30% C16, 5% C18) dimethyl benzyl ammonium chloride	53516-76-0	0.1 - 0.2	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. If present, remove contact lenses after the first 5 minutes of rinsing, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin Contact	Rinse skin with plenty of water. If irritation persists, call a doctor.
Inhalation	Move to fresh air. If breathing problems develop, call a doctor.
Ingestion	Drink a glassful of water. Call a doctor or poison control center.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	Liquid may cause eye irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Hazardous Combustion Products

Oxides of carbon.

Explosion Data

Sensitivity to Mechanical Impact	No.
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Sensitivity to Static Discharge	No.
--	-----

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place.

Incompatible Products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol monoethyl ether 112-25-4	None	None	None
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride 85409-23-0	None	None	None
n-Alkyl (5% C12, 60% C14, 30% C16, 5% C18) dimethyl benzyl ammonium chloride 53516-76-0	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures	Showers
	Eyewash stations
	Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection	No special protective equipment required.
Skin and Body Protection	No special protective equipment required.
Respiratory Protection	No protective equipment is needed under normal use conditions. If irritation is experienced, ventilation and evacuation may be required.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical and Chemical Properties**

Physical State	Thin liquid absorbed into non-woven wipes		
Appearance	Clear liquid absorbed into non-woven wipes	Odor	Citrus, lemon, lime
Color	Colorless liquid - white non-woven wipes	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	6 - 9 (liquid)	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.0 (liquid)	None known
Water Solubility	Complete (liquid)	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Exposure to vapor or mist may irritate respiratory tract.
Eye Contact	Liquid may cause irritation.
Skin Contact	Liquid may cause slight irritation.
Ingestion	Ingestion of liquid may cause slight irritation to mucous membranes and gastrointestinal tract.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol monoethyl ether 112-25-4	739 mg/kg (Rat)	721 mg/kg (Rabbit)	>0.5 mg/L (Rat, 4 h)

Information on toxicological effects

Symptoms Liquid may cause redness and tearing of eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	None of the ingredients in this product are on the IARC, OSHA, or NTP carcinogen lists.
Reproductive Toxicity	No information available.

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	No known effect based on information supplied.
Target Organ Effects	Respiratory system, eyes, skin, gastrointestinal tract (GI).
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product Information

ATEmix (oral)

40.1 g/kg

ATEmix (dermal)

59.8 g/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated.
<u>TDG</u>	Not regulated.
<u>ICAO</u>	Not regulated.
<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated

15. REGULATORY INFORMATION

Chemical Inventories

TSCA All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

DSL/NDSL All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical which is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No.	Weight %	Threshold Value (%)
Ethylene glycol monohexyl ether	112-25-4	1 - 5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances that are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This product does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethylene glycol monoethyl ether 112-25-4			X	X	X
Isopropyl alcohol 67-63-0	X	X	X	X	

International Regulations**Canada****WHMIS Hazard Class**

D2B Toxic materials

**16. OTHER INFORMATION**

NFPA Health Hazard 1 Flammability 0 Instability 0 Physical and Chemical Hazards -

HMIS Health Hazard 1 Flammability 0 Physical Hazard 0 Personal Protection A

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Preparation/Revision Date January 5, 2015

Revision Note New

Reference 1073956/174191.002

General Disclaimer

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End of Safety Data Sheet



SDS Date: 08/28/2015

SAFETY DATA SHEET**SECTION 1: PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION**

PRODUCT NAME:	McKesson Consult® iFOBT Test		
MFR №.:	4485; 4486; 4487; 4487-HCCHP		
INTENDED USE:	McKesson Consult® iFOBT Test, a Fecal Immunochemical Test (FIT) is a rapid, convenient qualitative immunoassay for the determination of human hemoglobin in feces, a vital tool in the diagnosis and therapy of gastrointestinal disorders. McKesson Consult® iFOBT Test features an innovative sampling method that utilizes one card for collection of two (2) specimens of feces and ONLY one immunochemical specimen preparation tube/test cassette system for analysis.		
PRODUCT USE:	For In Vitro Diagnostic Use. See product literature for details.	EMERGENCY:	1-800-451-8346 (3E Company) Day or Night
DISTRIBUTED BY:	McKesson Medical-Surgical Inc.		
ADDRESS:	9954 Mayland Drive, Suite 4000 Richmond, Virginia 23233		
TELEPHONE:	1-800-777-4908 Monday – Friday 8:00 am – 6pm EST		

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION	SIGNAL WORD	SYMBOL	HAZARD & PRECAUTIONARY STATEMENTS
Not Hazardous	N/A	N/A	N/A

Emergency Overview:

This product has been classified as non-hazardous based on the physical and/or chemical nature and/or concentration of ingredients. Product has little to no hazards for Emergency Responders if spilled and has no unusual hazard if in a fire. Sodium azide ($\leq 0.1\%$) is included as a preservative. Although it is not considered hazardous at this level, please note that accumulated sodium azide may react with lead or copper plumbing to form highly explosive metal azides. Thorough flushing of plumbing is recommended.

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

As part of good industrial, personal hygiene & safety procedure, avoid all unnecessary exposure to the chemical components in this kit and ensure prompt removal from skin, eyes, and clothing. Significant health effects are NOT anticipated from routine use when adhering to the instructions listed in the Package Insert provided with kit.

This kit may contain material of human or animal origin and should be considered as potentially capable of transmitting infectious diseases. Human serum products and patient specimens should be considered potentially hazardous and handled in the same manner as an infectious agent. Follow Universal Precautions as necessary.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS**PRODUCT DESCRIPTION:** Mixture; Clear Color (Buffer Soln.); Liquid; Odorless; Consisting of the following ingredient(s)

CHEMICAL NAME	IUPAC	SYNONYMS	COMPOSITION	IDENTIFIERS
Sodium Azide	Sodium Azide	Sodium trinitride; Smite; Azium; Sodium azoimide	$\leq 0.1\%$	CAS 26628-22-8
Molecular Formula: NaN ₃				PUBCHEM 33557 EC 247-852-1 UN 1687 RTECS VY8050000

SAFETY DATA SHEET

SECTION 4: FIRST AID MEASURES

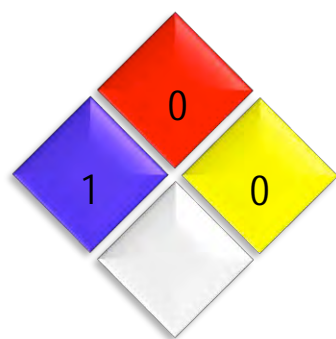
EYES:	In case of contact with eyes, immediately wash eyes under potable running water for at least 15 minutes, making sure that the eyelids are held open. If pain or irritation occurs, obtain medical attention.
SKIN:	In case of contact to the skin, remove any contaminated clothing and wash affected area with plenty of soap and water. If pain, irritation, or other symptoms develop, obtain medical attention.
INGESTION:	In case of ingestion, contact a poison control center or physician for instructions. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
INHALATION:	Inhalation of any component in this kit is unlikely. If a component of this kit is inhaled and causes discomfort, move exposed individual to fresh air. Seek medical attention if breathing is difficult or symptoms persist. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance.
SYMPTOMS:	To the best of our knowledge, no symptoms, acute or delayed, have been reported.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:	Non Combustible
Auto-ignition Temperature:	Not Applicable
Upper / Lower Explosion Limit:	Not Applicable
Extinguishing Media:	For small fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray
Special Fire Fighting Procedures:	This material will not significantly contribute to the intensity of a fire. Use extinguishing material suitable to the surrounding fire. Utilize proper personal protective equipment when responding to any fire. Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment.
Special Exposure Hazards:	None Identified

Only trained and competent personnel shall attempt to extinguish a fire. Contact emergency response personnel as required. Be cautious of surrounding materials that may react with the extinguishing media.

NFPA Ratings:



	Health Hazard (Blue)	Flammability (Yellow)	Reactivity (Red)	Special Hazard (White)
0	Will not burn (e.g., argon)	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g., helium)	The white "special notice" area can contain several symbols. The following symbols are defined by the NFPA 704 standard.	Poses no health hazard, no precautions necessary (e.g., water)
1	Must be heated before ignition can occur (e.g., mineral oil). Flash point over 93°C (200°F)	Normally stable, but can become unstable at elevated temperatures and pressures (e.g., propene)		Exposure would cause irritation with only minor residual injury (e.g., acetone)
2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur (e.g., diesel fuel). Flash point between 38°C (100°F) and 93°C (200°F)	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g., phosphorus, potassium, sodium)	OX Oxidizer (e.g., potassium perchlorate, ammonium nitrate, hydrogen peroxide)	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g., ethyl ether)
3	Liquids and solids that can be ignited under almost all ambient temperature conditions (e.g., gasoline). Liquids having a Flash point below 23°C (73°F) and having a Boiling point at or above 38°C (100°F) or having a Flash point between 23°C (73°F) and 38°C (100°F)	Capable of detonation or explosive decomposition but requires a strong initiating source, must be heated under confinement before initiation, reacts explosively with water, or will detonate if severely shocked (e.g., ammonium nitrate)	W Reacts with water in an unusual or dangerous manner (e.g., cesium, sodium, sulfuric acid)	Short exposure could cause serious temporary or moderate residual injury (e.g., chlorine gas)
4	Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will burn readily (e.g., propane, hydrogen). Flash point below 23°C (73°F)	Readily capable of detonation or explosive decomposition at normal temperatures and pressures (e.g., nitroglycerine, Trinitrotoluene)		Very short exposure could cause death or major residual injury (e.g., hydrogen cyanide, phosphine, carbon monoxide)

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	This kit contains materials of biological origin. Use Personal Protective Equipment during clean-up procedures. Use good laboratory procedures; avoid eye and skin contact.
Environmental Precautions:	No environmental hazard is anticipated provided that the material is handled and disposed of with due care. Contain spill to prevent migration.
Spill and Leak Procedures:	Large spills of this kit are unlikely. Personnel who have received basic chemical safety training can generally handle small-scale releases, such as 1 container in this kit. Utilize safety glasses, nitrile gloves, and lab coat/apron when responding to spills involving the components of this kit. Absorb liquid with an appropriate inert, non-flammable absorbent and place in container suitable for disposal. Dispose of in accordance with applicable U.S. Federal, State, or local procedures or appropriate standards of Canada or the EU (see Section 13, Disposal Considerations).

SAFETY DATA SHEET

SECTION 7: HANDLING & STORAGE

Handling:	As with all chemicals, avoid getting components within this kit ON YOU or IN YOU. Wash exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. This kit should be handled only by qualified clinical or laboratory personnel trained on the use of this kit. This kit should be handled as though capable of transmitting infectious diseases. Universal Precautions should be followed when using this kit. Not for use by the general public.
Storage:	Keep away from incompatible materials (Section 10). To maintain efficacy, when not in use, keep components tightly closed and store according to the package insert instructions.
Specific Use:	For in vitro diagnostic use only.
Other:	Do not substitute reagents from kits from other manufacturers. The reagents in each kit are matched. Reagents from different kits must not be interchanged or pooled. Mix the reagents well before use. If the kit does not yield expected results when controls are tested, the kit should be discarded. Traces of detergent or dried reactants on the test slide may adversely affect test performance and results. Replace vial closure when not being used. Dropper Bulb(s) contain natural rubber.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

	OSHA PEL	ACGIH TLV	DFG MAK	NIOSH
Sodium Azide				
EU Index: 011-004-00-7				
EU Classification: Highly toxic (T+)				
Very dangerous for the environment (N)				
	none listed	0.29 mg/m ³ Ceiling (sodium azide); 0.11 ppm Ceiling (hydrazoic acid, vapor)	0.2 mg/m ³ MAK (inhalable fraction)	0.3 mg/m ³ Ceiling (sodium azide); 0.1 ppm Ceiling (hydrazoic acid, vapor)

Occupational Exposure Controls:

Engineering Controls: No special engineering controls are required when working with this kit. Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

Personal Protective Equipment (PPE):

Respiratory Protection:	Under normal conditions, the use of this product should not require respiratory protection.
Eye Contact:	Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.
Skin Contact:	Wear Impervious gloves, such as latex or equivalent, should be worn to prevent skin contact and especially cover any cuts, abrasions or skin lesions. Dispose of gloves as bio-hazardous material. Wash hands thoroughly after removing gloves. Use extreme caution with any sharp object to avoid percutaneous exposure to material. Wear outer protective garments such as a lab coat or gown. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.
Other:	Not Applicable



Environmental Controls: No special environmental controls are required.

SECTION 9: PHYSICAL & CHEMICAL CHARACTERISTICS

Characteristic	Buffer
Appearance	Clear
Odor	Odorless
pH	Neutral
Boiling Point	Not Available
Melting Point	Not available
Specific Gravity	Approximately 1
Vapor Pressure	Not available
Vapor Density	Not available



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Solubility in Water
Evaporation Rate
Auto-ignition Temperature
Decomposition Temperature
Viscosity

Soluble	
< 1	
Not Available	
Not Available	
Not Available	

SECTION 10: STABILITY AND REACTIVITY

Characteristic

Buffer

Stability:

Stable when stored according to approved labeling (see Section 7).

Conditions to Avoid:

Do not freeze. Protect from prolonged exposure to heat, humidity, and light, ignition sources & incompatible materials. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Thorough flushing of plumbing with water is recommended.

Materials to Avoid (Incompatibility):

Avoid contact with acid, metals, halogenated solvents, and dimethyl sulfate.

Hazardous Decomposition or Byproducts:

None, when stored as recommended.
Under Fire conditions: carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas

Hazardous Reactions:

NONE EXPECTED

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data for Hazardous Ingredients:

There are currently no toxicity data available for the components of this kit.

Routes of Exposure:

Overexposures to components within this kit are not expected. Common routes of exposure may include ingestion and eye/skin contact. Specific paths of concern for potentially infectious materials are skin puncture, contact with broken skin, contact with mucous membranes and inhalation of aerosolized material.

Potential Effects of Acute Overexposure, By Route Of Exposure:

This kit may contain materials of human or animal origin and should be considered as potentially capable of transmitting infectious diseases.

INHALATION:

Vapors, mists, sprays, or dusts of this kit can cause irritation to the respiratory tract.

CONTACT WITH SKIN or EYES:

Contact can cause eye or skin irritation.

SKIN ABSORPTION:

May be harmful if absorbed through skin.

INGESTION:

May cause nausea, diarrhea, vomiting, and headache, slight lowering of blood pressure, abdominal pain, and a general feeling of apprehension and un-wellness, as well as, irritation of the mouth, throat, and other issues of the gastro-intestinal system may occur.

INJECTION:

Accidental injection of this kit may cause burning, reddening, and swelling in addition to the wound. Symptoms of such exposure can include those described under "Inhalation", "Contact with Skin or Eyes," and "Ingestion".

Potential Effects of Chronic Exposure:

Long-term skin or eye contact can result in dermatitis or eye irritation. Prolonged or repetitive exposure to Sodium Azide may increase risk of cumulative effects.

Symptoms of Overexposure:

Symptoms of overexposure to Sodium Azide may include: eye, skin, nose, and throat irritation, headache, nausea and vomiting. Symptoms may be delayed for several hours after exposure.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Medical Conditions Aggravated by Exposure:

Persons with pre-existing skin disorders; eye problems or impaired respiratory system function can be more susceptible to health effects associated with overexposures to the chemicals within this kit.

Irritation/Sensitization

May cause sensitization by inhalation and skin contact.

Other Effects

None identified.

Carcinogenicity

No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or GHS



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SAFETY DATA SHEET**SECTION 12: ECOLOGICAL INFORMATION**

Eco-toxicity No adverse effects on the environment are expected from the components of this kit.

Persistence and Degradability, Mobility & Bioaccumulation Data are not available for the components of this kit.

There is limited potential for the components within this kit to accumulate in plant or animal systems.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of waste materials, unused components and contaminated packaging in compliance with country (i.e., Canada, EU) federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

WITH SPECIMEN: Patient specimens and all materials coming into contact with them should be handled as if capable of transmitting infections and disposed of with proper precautions.

SECTION 14: TRANSPORT INFORMATION**U.S. Transportation**

This substance is considered to be non-hazardous for transport.

Canadian Transportation

The above-listed DOT basic description applies to this product under the regulations of Transport Canada.

International Air Transportation

This substance is considered to be non-hazardous for air transport.

SECTION 15: REGULATORY INFORMATION**U.S. FEDERAL AND STATE REGULATIONS**

U.S. SARA SECTION 311/312 FOR KIT: Not applicable

U.S. TSCA INVENTORY STATUS: Sodium Azide listed on the TSCA Inventory.

OTHER U.S. FEDERAL REGULATIONS: Not applicable

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): NO INGREDIENTS LISTED

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: Sodium Azide is listed on the DSL Inventory.

CANADIAN WHMIS SYMBOLS: None Required

HMIS RATINGS

Health	1
Flammability	0
Physical Hazard	0
Protective Equipment	B

B: Safety Glasses and Gloves

EU LABELING CLASSIFICATION

Classification: Non-Hazardous-No hazard classification or danger symbol required. Risk Phrases: N/A
Safety Phrases: N/A



SDS Date: 08/28/2015

SAFETY DATA SHEET

SECTION 16: OTHER INFORMATION

Revision Date: August 28, 2015
This SDS has been updated to comply with GHS requirements

DISCLAIMER:

This information relates onto to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. The information and recommendations contained herein are to the best of the manufacturer's knowledge and belief accurate and reliable as of the date indicated. No representation warranty or guarantee, however, is made with regards to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy itself as to the suitability and completeness of such information for its own particular use. Appropriate warnings and safe-handling procedures should be provided to handlers and users..

NFPA 704

<p>CHEMTREC® (24 hours) 1-800-424-9300 (Toll-free in the U.S., Canada, and the U.S. Virgin Islands) For calls originating elsewhere: 703-527-3887 (Collect calls are accepted)</p>	<p>CHEMTEL, INC. (24 hours) 1-888-255-3924 (Toll-free in the U.S., Canada, Puerto Rico and the U.S. Virgin Islands) For calls originating elsewhere: 813-248-0585 (Collect calls are accepted)</p>
<p>INFOTRAC (24 hours) 1-800-535-5053 (Toll-free in the U.S., Canada, and the U.S. Virgin Islands) For calls originating elsewhere: 352-323-3500 (Collect calls are accepted)</p>	<p>3E COMPANY (24 hours) 1-800-451-8346 (Toll-free in the U.S., Canada, and the U.S. Virgin Islands) For calls originating elsewhere: 760-602-8703 (Collect calls are accepted)</p>

The emergency response information services shown above have requested to be listed as providers of emergency response information and have agreed to provide emergency response information to all callers. They maintain periodically updated lists of state and Federal radiation authorities who provide information and technical assistance on handling incidents involving radioactive materials.

NATIONWIDE POISON CONTROL CENTER (United States Only)

Emergency and information calls are answered by the nearest Poison Center (24 hours): **1-800-222-1222** (toll-free in the U.S.).

NATIONAL RESPONSE CENTER (NRC)

The NRC, which is operated by the U.S. Coast Guard, receives reports required when dangerous goods and hazardous substances are spilled. After receiving notification of an incident, the NRC will immediately notify the appropriate Federal On-Scene Coordinator and concerned Federal agencies. Federal law requires that anyone who releases into the environment a reportable quantity of a hazardous substance (including oil when water is, or may be affected) or a material identified as a marine pollutant must **immediately** notify the NRC. When in doubt as to whether the amount released equals the required reporting levels for these materials, the NRC should be notified.

CALL **NRC** (24 hours) **1-800-424-8802** (Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
202-267-2675 in the District of Columbia

Calling the emergency response telephone number, CHEMTREC®, CHEMTEL, INC., INFOTRAC or 3E COMPANY, does not constitute compliance with regulatory requirements to call the NRC.

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these, which are commonly used, include the following:

CAS (Chemical Abstract Service) Number that uniquely identifies each compound.

ACGIH (American Conference of Governmental Industrial Hygienists): a professional association that establishes exposure limits.

TLV (Threshold Limit Value): an airborne concentration of a substance that represents conditions under which it is generally believed that nearly all workers can be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (TWA), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level (C). Skin absorption effects must also be considered.

OSHA (U.S. Occupational Safety and Health Administration)

PEL (Permissible Exposure Limit): This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL that was vacated by Court Order.

IDLH (Immediately Dangerous to Life and Health): This level represents a concentration from which one can escape within 30- minutes without suffering escape-preventing or permanent injury.

DFG-MAK is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. NIOSH is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA).

NIOSH issues exposure guidelines called Recommended Exposure Levels (RELs). When no exposure guidelines are established, an entry of NE is made for reference.

Protective Equipment

A: Safety Glasses.

B: Safety glasses and gloves.

C: Safety glasses, gloves and body protection.

D: Splash goggles with face shield, gloves and body protection.

E: Eye protection, gloves and dust mask respiratory protection.

F: Eye protection, gloves, body protection and dust mask respiratory protection.

G: Eye protection, gloves and air purifying respiratory protection.

HAZARD RATINGS:

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

Health Hazard: 0 (minimal acute or chronic exposure hazard); 1 (slight acute or chronic exposure hazard); 2 (moderate acute or significant chronic exposure hazard); 3 (severe acute exposure hazard; onetime overexposure can cause permanent injury and can be fatal); 4 (extreme acute exposure hazard; single overexposure can be fatal). * Indicates chronic hazard.

Flammability Hazard: 0 (minimal hazard); 1 (materials that require substantial pre-heating before burning); 2 (combustible liquid or solids; liquids with a flash point of 38-93°C [100-200°F]); 3 (Class IB and IC flammable liquids with flash points below 38°C [100°F]); 4 (Class IA flammable liquids with flash points below 23°C [73°F] and boiling points below 38°C [100°F]).

Reactivity Hazard: 0 (normally stable); 1 (material that can become unstable at elevated temperatures or which can react slightly with water); 2 (materials that are unstable but do not detonate or which can react violently with water); 3 (materials that can detonate when initiated or which can react explosively with water); 4 (materials that can detonate at normal temperatures or pressures).

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA):

Health Hazard: 0 (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); 1 (materials that on exposure under fire conditions could cause irritation or minor residual injury); 2 (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); 3 (materials that can on short exposure could cause serious temporary or residual injury); 4 (materials that under very short exposure could cause death or major residual injury).

Flammability Hazard and Reactivity Hazard: Refer to definitions for "Hazardous Materials Identification System".

FLAMMABILITY LIMITS IN AIR: Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION:

Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: LD50 - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; LC50 - Lethal Concentration (gases) which kills 50% of the exposed animals; ppm concentration expressed in parts of material per million parts of air or water; mg/m3 concentration expressed in weight of substance per volume of air; mg/kg quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include TDLo, the lowest dose to cause a symptom and TCLo the lowest concentration to cause a symptom; TD0, LDLo, LD0, TC, TCo, LCLo, and LCo, the lowest dose (or concentration) to cause lethal or toxic effects. BEI - Biological Exposure Indices, represent the levels of determinants that are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: EC is the effect concentration in water.

Data from several sources are used to evaluate the cancer-causing potential of the material. The sources and ratings are: IARC - the International Agency for Research on Cancer; 1 = Carcinogenic to humans, 2A, 2B = Probably carcinogenic to humans, 3 = Unclassifiable as to carcinogenicity in humans, and 4 = Probably not carcinogenic to humans. NTP - the National Toxicology Program; K = Known to be a human carcinogen, and R = Reasonably anticipated to be a human carcinogen. RTECS - the Registry of Toxic Effects of Chemical Substances. OSHA - Occupational Safety and Health Administration and CAL/OSHA - California's subunit of the Occupational Safety and Health Administration; Ca = Carcinogen defined with no further categorization. ACGIH - American Conference of Governmental Industrial Hygienists; A1 = Confirmed human carcinogen, A2 = Suspected human carcinogen, A3 = Confirmed animal carcinogen with unknown relevance to humans, A4 = Not classifiable as a human carcinogen, and A5 = Not suspected as a human carcinogen. NIOSH - U.S. National Institute for Occupational Safety and Health; Ca = Potential occupational carcinogen, with no further categorization. EPA - U.S. Environmental Protection Agency; A = Human carcinogen, B = Probable human carcinogen, C = Possible human carcinogen, D = Not classifiable as to human carcinogenicity, E = Evidence of Non-carcinogenicity for humans, K = Known human carcinogen, L = Likely to produce cancer in humans, CBD = Cannot be determined, NL = Not likely to be carcinogenic in humans, and I = Data are inadequate for an assessment of human carcinogenic potential.

REGULATORY INFORMATION:

This section explains the impact of various laws and regulations on the material. EPA is the U.S. Environmental Protection Agency. WHMIS is the Canadian Workplace Hazardous Materials Information System. DOT and TC are the U.S. Department of Transportation and the Transport Canada, respectively.

Superfund Amendments and Reauthorization Act (SARA); the Canadian Domestic/Non-Domestic Substances List (DSL/NDL); the U.S. Toxic Substance Control Act (TSCA); Marine Pollutant status according to the DOT; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund); and various state regulations.

This section also includes information on the precautionary warnings that appear on a material's industrial package label.

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

Cyanocobalamin Injection, USP

Section 1. Identification

- GHS product identifier** : Cyanocobalamin Injection, USP
- Synonyms** : Not available.
- Product code** : NDC 0143-9621-25 (25 x 1 mL vials), NDC 0143-9620-10 (10 x 10 mL vials), NDC 0143-9619-10 (10 x 30 mL vials)
- Chemical family** : Not available.
- Product type** : Not available.
- Container information** : (2 ml Vial, amps etc)
2 mL amber glass vial, 10 mL amber glass vial, 30 mL amber glass vial.
- Identified uses** : Cyanocobalamin is indicated for vitamin B12 deficiencies due to malabsorption which may be associated with the following conditions:
Addisonian (pernicious) anemia
Gastrointestinal pathology, dysfunction, or surgery, including gluten enteropathy or sprue, small bowel bacteria overgrowth, total or partial gastrectomy
Fish tapeworm infestation
Malignancy of pancreas or bowel
Folic acid deficiency
It may be possible to treat the underlying disease by surgical correction of anatomic lesions leading to small bowel bacterial overgrowth, expulsion of fish tapeworm, discontinuation of drugs leading to vitamin malabsorption, use of a gluten-free diet in nontropical sprue, or administration of antibiotics in tropical sprue. Such measures remove the need for long-term administration of cyanocobalamin.
Requirements of vitamin B12 in excess of normal (due to pregnancy, thyrotoxicosis, hemolytic anemia, hemorrhage, malignancy, hepatic and renal disease) can usually be met with oral supplementation.
Cyanocobalamin Injection, USP is also suitable for the vitamin B12 absorption test (Schilling test).
- Supplier's details** : West-Ward Pharmaceuticals Corp.
465 Industrial Way West
Eatontown NJ 07724 USA
- Emergency telephone number (with hours of operation)** : CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887
24/7

Section 2. Hazards identification

- OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
- Classification of the substance or mixture** : Not classified.
- GHS label elements**
- Signal word** : No signal word.
- Hazard statements** : No known significant effects or critical hazards.



KMK Regulatory Services

Tel : +1-888-GHS-7769 (447-7769) / +1-450-GHS-7767 (447-7767)
www.kmkregservices.com www.askdrluc.com www.ghssmart.com



Cyanocobalamin Injection, USP

Section 2. Hazards identification

Precautionary statements

- Prevention** : Not applicable.
- Response** : Not applicable.
- Storage** : Not applicable.
- Disposal** : Not applicable.
- Hazards not otherwise classified** : None known.
- Hazards not otherwise classified (HNOC)** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : NDC 0143-9621-25 (25 x 1 mL vials), NDC 0143-9620-10 (10 x 10 mL vials), NDC 0143-9619-10 (10 x 30 mL vials)

Ingredient name	%	CAS number
Water	90 - 100	7732-18-5
Benzyl alcohol	1 - 3	100-51-6
Sodium chloride	0.3 - 1	7647-14-5
Sodium hydroxide	0 - 0.1	1310-73-2
Hydrochloric acid	0 - 0.1	7647-01-0
Cyanocobalamin	0 - 0.1	68-19-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.





Section 4. First aid measures

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : No special measures are required.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up





Section 6. Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Benzyl alcohol	AIHA WEEL (United States, 10/2011). TWA: 10 ppm 8 hours.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection





Section 8. Exposure controls/personal protection

- | | |
|-------------------------------|--|
| Hand protection | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| Body protection | : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Other skin protection | : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Respiratory protection | : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |

Section 9. Physical and chemical properties

Appearance

- | | |
|---|------------------|
| Physical state | : Liquid. |
| Color | : Clear. Red. |
| Odor | : Not available. |
| Odor threshold | : Not available. |
| pH | : 4.5 to 7 |
| Melting point | : Not available. |
| Boiling point | : Not available. |
| Flash point | : Not available. |
| Evaporation rate | : Not available. |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Not available. |
| Vapor pressure | : Not available. |
| Vapor density | : Not available. |
| Relative density | : Not available. |
| Solubility in water | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Not available. |

Section 10. Stability and reactivity

- | | |
|---|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : No specific data. |





Section 10. Stability and reactivity

Incompatible materials : Not available.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Benzyl alcohol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1230 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Benzyl alcohol	Skin - Mild irritant	Man	-	48 hours 16 mg	-
	Skin - Moderate irritant	Pig	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.





Section 11. Toxicological information

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	82000 mg/kg
Inhalation (vapors)	733.3 mg/L

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Benzyl alcohol	Acute LC50 460000 µg/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Benzyl alcohol	0.87	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.





Cyanocobalamin Injection, USP

Section 12. Ecological information

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

AERG : Not applicable.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 311: Sodium hydroxide; Hydrochloric acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed





Cyanocobalamin Injection, USP

Section 15. Regulatory information

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Hydrochloric acid	≤0.1	Yes.	500	-	5000	-

SARA 304 RQ : 50000000 lbs / 22700000 kg [5982944.8 gal / 22647909.8 L]

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Benzyl alcohol	≥1 - ≤3	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Cyanocobalamin	68-19-9	≤0.3
Supplier notification	Cyanocobalamin	68-19-9	≤0.3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Benzyl alcohol

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : The following components are listed: Benzyl alcohol

California Prop. 65

No products were found.





Section 16. Other information

History

Date of issue mm/dd/yyyy : 03/15/2016

Version : 1

Prepared by : KMK Regulatory Services Inc.

Key to abbreviations

: ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.





SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Dispatch® Hospital Cleaner Disinfectant Towels with Bleach

Other means of identification

EPA Registration Number 56392-8

Recommended use of the chemical and restrictions on use

Recommended use Moistened disinfecting bleach wipes

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

Clorox Professional Products Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Appearance Clear, colorless liquid
absorbed into white, non-woven wipes

Physical State Thin liquid absorbed into
non-woven wipes

Odor Fruity, floral, bleach

Precautionary Statements - Prevention

None

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

21.8% of the mixture consists of ingredient(s) of unknown toxicity

Other information

No information available

Interactions with Other Chemicals

Reacts with ammonia or acids such as vinegar, rust removers, or toilet bowl cleaners to produce hazardous gases, such as chlorine and other chlorinated compounds.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product contains no substances that at their given concentrations are considered to be hazardous to health.

4. FIRST AID MEASURES

First aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. If present, remove contact lenses after the first 5 minutes of rinsing, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin Contact	Rinse skin with plenty of water. If irritation persists, call a doctor.
Inhalation	Move to fresh air. If breathing problems develop, call a doctor.
Ingestion	Drink a glassful of water. Call a doctor or poison control center.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	Liquid may cause eye irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Hazardous Combustion Products

Oxides of carbon.

Explosion Data

Sensitivity to Mechanical Impact	No.
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Sensitivity to Static Discharge	No.
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Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Avoid contact with eyes.
Other Information	Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions	See Section 12 for additional ecological information.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Cleaning Up	Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.
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Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed in a dry, cool, and well-ventilated place.
Incompatible Products	Ammonia or acids such as vinegar, rust removers, or toilet bowl cleaners.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines	This product does not contain any ingredients with occupational exposure limits that are at concentrations below their cut-off values/concentrations and that contribute to the hazard classification of the product.
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Appropriate engineering controls

Engineering Measures	Showers Eyewash stations Ventilation systems
-----------------------------	--

Individual protection measures, such as personal protective equipment

Eye/Face Protection	No special protective equipment required.
Skin and Body Protection	No special protective equipment required.
Respiratory Protection	No protective equipment is needed under normal use conditions. If irritation is experienced, ventilation and evacuation may be required.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Liquid absorbed into non-woven wipes		
Appearance	Clear, thin liquid absorbed into non-woven wipes	Odor	Fruity, floral, bleach
Color	Colorless liquid - white non-woven wipes	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	12 - 12.5 (liquid)	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.0 (liquid)	None known
Water Solubility	Complete (liquid)	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	
<u>Other Information</u>		
Softening Point	No data available	
VOC Content (%)	No data available	
Particle Size	No data available	
Particle Size Distribution	No data available	

10. STABILITY AND REACTIVITY

Reactivity

Reacts with ammonia or acids such as vinegar, rust removers, or toilet bowl cleaners to produce hazardous gases, such as chlorine and other chlorinated compounds.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Ammonia or acids such as vinegar, rust removers, or toilet bowl cleaners.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Exposure to vapor or mist may irritate respiratory tract.
Eye Contact	Liquid may cause irritation.
Skin Contact	Liquid may cause slight irritation.
Ingestion	Ingestion of liquid may cause slight irritation to mucous membranes and gastrointestinal tract.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms Liquid may cause redness and tearing of eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	No known effect based on information supplied.
Target Organ Effects	Respiratory system, eyes, skin, gastrointestinal tract (GI).
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated.
<u>TDG</u>	Not regulated.
<u>ICAO</u>	Not regulated.
<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated

15. REGULATORY INFORMATION

Chemical Inventories

TSCA All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

DSL/NDSL All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			X
Sodium hydroxide 1310-73-2	1000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
DuPont Nonwoven Fabric - N/A152	Contains titanium dioxide

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	
Sodium hydroxide 1310-73-2	X	X	X	X	

International Regulations**Canada****WHMIS Hazard Class**

Non-controlled

16. OTHER INFORMATION

NFPA Health Hazard 1 Flammability 0 Instability 1 Physical and Chemical Hazards none

HMIS Health Hazard 1 Flammability 0 Physical Hazard 1 Personal Protection A

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Preparation/Revision Date January 5, 2015

Revision Note New

Reference 1204996/158610.001

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Epinephrine Injection (Hospira, Inc.)

Trade Name: Not applicable
Chemical Family: Not determined

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product used for allergic reactions (anaphylaxis)

Details of the Supplier of the Safety Data Sheet

Hospira, A Pfizer Company
 275 North Field Drive
 Lake Forest, Illinois 60045
 1-800-879-3477

Hospira UK Limited
 Horizon
 Honey Lane
 Hurley
 Maidenhead, SL6 6RJ
 United Kingdom

Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: pfizer-MSDS@pfizer.com

Emergency telephone number:
International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification Not classified as hazardous

Label Elements

Signal Word: Not Classified
Hazard Statements: Not classified in accordance with international standards for workplace safety.

Other Hazards

An Occupational Exposure Value has been established for one or more of the ingredients (see Section 8).

Note:

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Epinephrine	51-43-4	200-098-7	Acute Tox. 2 (H300) Acute Tox. 2 (H310)	1.0
Sodium bisulfite	7631-90-5	231-548-0	Acute Tox. 4 (H302)	<2.0
HYDROCHLORIC ACID	7647-01-0	231-595-7	Skin Corr.1B (H314) STOT SE 3 (H335)	**
Sodium chloride	7647-14-5	231-598-3	Not Listed	*

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Water for Injection	7732-18-5	231-791-2	Not Listed	*
Sodium citrate	68-04-2	200-675-3	Not Listed	*

Additional Information:

* Proprietary

** to adjust pH

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES**Description of First Aid Measures****Eye Contact:**

Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

Skin Contact:

Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

Ingestion:

Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation:

Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed**Symptoms and Effects of Exposure:**

For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

Medical Conditions

None known

Aggravated by Exposure:**Indication of the Immediate Medical Attention and Special Treatment Needed****Notes to Physician:**

None

5. FIRE FIGHTING MEASURES**Extinguishing Media:**

Extinguish fires with CO2, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture**Hazardous Combustion Products:**

Formation of toxic gases is possible during heating or fire.

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Fire / Explosion Hazards: Fine particles (such as dust and mists) may fuel fires/explosions.

Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures**

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up**Measures for Cleaning /****Collecting:**

Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly.

Additional Consideration for Large Spills:

Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities**Storage Conditions:**

Store as directed by product packaging.

Specific end use(s):

Pharmaceutical drug product

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control Parameters**

Refer to available public information for specific member state Occupational Exposure Limits.

Sodium bisulfite

ACGIH Threshold Limit Value (TWA)	5 mg/m ³
Australia TWA	5 mg/m ³
Belgium OEL - TWA	5 mg/m ³
Denmark OEL - TWA	5 mg/m ³
France OEL - TWA	5 mg/m ³
Greece OEL - TWA	5 mg/m ³
Ireland OEL - TWAs	5 mg/m ³
Portugal OEL - TWA	5 mg/m ³
Spain OEL - TWA	5 mg/m ³
Switzerland OEL - TWAs	5 mg/m ³
Vietnam OEL - TWAs	5 mg/m ³

HYDROCHLORIC ACID

ACGIH Ceiling Threshold Limit: 2 ppm

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Australia PEAK	5 ppm 7.5 mg/m ³
Austria OEL - MAKs	5 ppm 8 mg/m ³
Belgium OEL - TWA	5 ppm 8 mg/m ³
Bulgaria OEL - TWA	5 ppm 8.0 mg/m ³
Cyprus OEL - TWA	5 ppm 8 mg/m ³
Czech Republic OEL - TWA	8 mg/m ³
Estonia OEL - TWA	5 ppm 8 mg/m ³
Germany - TRGS 900 - TWAs	2 ppm 3 mg/m ³
Germany (DFG) - MAK	2 ppm 3.0 mg/m ³
Greece OEL - TWA	5 ppm 7 mg/m ³
Hungary OEL - TWA	8 mg/m ³
Ireland OEL - TWAs	5 ppm 8 mg/m ³
Italy OEL - TWA	5 ppm 8 mg/m ³
Japan - OELs - Ceilings	2 ppm 3.0 mg/m ³
Latvia OEL - TWA	5 ppm 8 mg/m ³
Lithuania OEL - TWA	5 ppm 8 mg/m ³
Luxembourg OEL - TWA	5 ppm 8 mg/m ³
Malta OEL - TWA	5 ppm 8 mg/m ³
Netherlands OEL - TWA	8 mg/m ³
Poland OEL - TWA	5 mg/m ³
Portugal OEL - TWA	5 ppm 8 mg/m ³
Romania OEL - TWA	5 ppm 8 mg/m ³
Slovakia OEL - TWA	5 ppm 8.0 mg/m ³
Slovenia OEL - TWA	5 ppm 8 mg/m ³
Spain OEL - TWA	5 ppm 7.6 mg/m ³
Switzerland OEL - TWAs	2 ppm 3.0 mg/m ³
Vietnam OEL - TWAs	5 mg/m ³
Sodium chloride	
Latvia OEL - TWA	5 mg/m ³
Lithuania OEL - TWA	5 mg/m ³

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Epinephrine

Pfizer Occupational Exposure Band (OEB): OEB 4 - Skin (control exposure to the range of 1ug/m³ to <10ug/m³, provide additional precautions to protect from skin contact)

Exposure Controls

Engineering Controls: Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.

Personal Protective Equipment: Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE). Contact your safety and health professional or safety equipment supplier for assistance in selecting the correct protective clothing/equipment based on an assessment of the workplace conditions, other chemicals used or present in the workplace and specific operational processes.

Hands: Impervious disposable gloves (e.g. Nitrile, etc.) (double recommended) if skin contact with drug product is possible and for bulk processing operations. (Protective gloves must meet the standards in accordance with EN374, ASTM F1001 or international equivalent.)

Eyes: Wear safety glasses or goggles if eye contact is possible. (Eye protection must meet the standards in accordance with EN166, ANSI Z87.1 or international equivalent.)

Skin: Wear impervious protective clothing to prevent skin contact – consider use of disposable clothing where appropriate. (Protective clothing must meet the standards in accordance with EN13982, ANSI 103 or international equivalent.)

Respiratory protection: Under normal conditions of use, if the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL (e.g. particulate respirator with a full mask, P3 filter). (Respirators must meet the standards in accordance with EN136, EN143, ASTM F2704-10 or international equivalent.)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Odor: No data available.
Molecular Formula: Mixture

Color: Clear colorless
Odor Threshold: No data available.
Molecular Weight: Mixture

Solvent Solubility: No data available
Water Solubility: No data available
Solubility: Soluble: Water
pH: 2.2-5.0
Melting/Freezing Point (°C): No data available
Boiling Point (°C): No data available.
Partition Coefficient: (Method, pH, Endpoint, Value)

Epinephrine

No data available

Sodium bisulfite

No data available

Water for Injection

No data available

Sodium chloride

No data available

Sodium citrate

No data available

HYDROCHLORIC ACID

No data available

Decomposition Temperature (°C): No data available.

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Evaporation Rate (Gram/s): No data available
 Vapor Pressure (kPa): No data available
 Vapor Density (g/ml): No data available
 Relative Density: No data available
 Specific Gravity: ~1
 Viscosity: No data available

Flammability:

Autoignition Temperature (Solid) (°C): No data available
 Flammability (Solids): No data available
 Flash Point (Liquid) (°C): No data available
 Upper Explosive Limits (Liquid) (% by Vol.): No data available
 Lower Explosive Limits (Liquid) (% by Vol.): No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available
 Chemical Stability: Stable under normal conditions of use.
 Possibility of Hazardous Reactions
 Oxidizing Properties: No data available
 Conditions to Avoid: Fine particles (such as dust and mists) may fuel fires/explosions.
 Incompatible Materials: As a precautionary measure, keep away from strong oxidizers
 Hazardous Decomposition Products: No data available

11. TOXICOLOGICAL INFORMATION**Information on Toxicological Effects**

General Information: The information included in this section describes the potential hazards of the individual ingredients.
Short Term: May be absorbed through the skin and cause systemic effects. May be absorbed through mucous membranes and cause systemic effects.
Known Clinical Effects: Adverse effects associated with therapeutic use include increased heart rate (tachycardia), palpitations, sweating, nausea, vomiting, difficulty breathing, dizziness, weakness, headache, anxiety, nervousness.

Acute Toxicity: (Species, Route, End Point, Dose)**Epinephrine**

Rat Dermal LD50 62 mg/kg
 Rat Oral LD50 30mg/kg

Sodium chloride

Rat Oral LD50 3000 mg/kg
 Mouse Oral LD50 4000 mg/kg

HYDROCHLORIC ACID

Rat Oral LD 50 238-277 mg/kg

Irritation / Sensitization: (Study Type, Species, Severity)**Sodium chloride**

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11. TOXICOLOGICAL INFORMATION

Eye Irritation Rabbit Moderate
 Skin Irritation Rabbit Mild

Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))

Epinephrine

Embryo / Fetal Development	Rat	Intravenous	Dose not specified	Not teratogenic	
Embryo / Fetal Development	Rabbit	Subcutaneous	30 times human dose	LOAEL	Developmental toxicity
Embryo / Fetal Development	Mouse	Subcutaneous	7 times human dose	LOAEL	Developmental toxicity

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

Epinephrine

Bacterial Mutagenicity (Ames)	<i>Salmonella</i>	Negative
Sister Chromatid Exchange	Negative with activation	
Sister Chromatid Exchange	Chinese Hamster Ovary (CHO) cells	Equivocal without activation

HYDROCHLORIC ACID

Bacterial Mutagenicity (Ames)	<i>Salmonella</i>	Negative
<i>In Vivo</i> Micronucleus	Rat	Negative

Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

Sodium bisulfite

IARC: Group 3 (Not Classifiable)

HYDROCHLORIC ACID

IARC: Group 3 (Not Classifiable)

12. ECOLOGICAL INFORMATION

Environmental Overview: Environmental properties have not been investigated. Releases to the environment should be avoided.

Toxicity: No data available

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

SAFETY DATA SHEET

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13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

Additonal Information: The US Federal EPA waste listing for epinephrine does not include epinephrine salts. Disposal should be performed in accordance with all federal, state, and local regulatory requirements.

Epinephrine
RCRA - P Series Wastes Listed

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Epinephrine

CERCLA/SARA 313 Emission reporting	Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	1000 lb 454 kg
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 3 Schedule 4
EU EINECS/ELINCS List	200-098-7

Sodium bisulfite

CERCLA/SARA 313 Emission reporting	Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	5000 lb 2270 kg
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-548-0

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15. REGULATORY INFORMATION

Water for Injection

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the obligations of Register:	Present
EU EINECS/ELINCS List	231-791-2

HYDROCHLORIC ACID

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	5000 lb
CERCLA/SARA - Section 302 Extremely Hazardous TPQs	2270 kg
CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	500 lb
California Proposition 65	5000 lb
Inventory - United States TSCA - Sect. 8(b)	Not Listed
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Present
EU EINECS/ELINCS List	Schedule 5
	Schedule 6
	231-595-7

Sodium chloride

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-598-3

Sodium citrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-675-3

16. OTHER INFORMATION

Text of CLP/GHS Classification abbreviations mentioned in Section 3

Acute toxicity, oral-Cat.4; H302 - Harmful if swallowed
 Acute toxicity, oral-Cat.2; H300 - Fatal if swallowed
 Acute toxicity, dermal-Cat.2; H310 - Fatal in contact with skin
 Skin corrosion/irritation-Cat.1B; H314 - Causes severe skin burns and eye damage
 Specific target organ toxicity, single exposure; Respiratory tract irritation-Cat.3; H335 - May cause respiratory irritation

Data Sources: Safety data sheets for individual ingredients. Publicly available toxicity information.

Reasons for Revision: New data sheet.

SAFETY DATA SHEET

Material Name: Epinephrine Injection (Hospira, Inc.)
Revision date: 03-Nov-2016

Page 10 of 10
Version: 1.0

Revision date: 03-Nov-2016
Product Stewardship Hazard Communication
Prepared by: Pfizer Global Environment, Health, and Safety Operations

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet



EPIPEN® AND EPIPEN® JR

SAFETY DATA SHEET

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product Name: EpiPen® and EpiPen® Jr

Synonyms: Epinephrine Auto-Injector

Intended Use Of The Product

Pharmaceutical. For emergency treatment of severe allergic reaction or anaphylaxis. Use only as directed. Refer to product insert for usage instructions and product information.

Name, Address, And Telephone Of The Responsible Party

Supplier:

Mylan Specialty L.P.
110 Allen Road
Basking Ridge, NJ 07920, USA
www.mylanspecialty.com
+1 877-446-3679

Manufacturer:

Meridian Medical Technologies,
a Pfizer company
Columbia, MD 21046 U.S.A

Emergency Telephone Number

Emergency Number : 877-446-3679

2. HAZARDS IDENTIFICATION

Patients/Consumers: Please refer to the product information insert or product label for appropriate consumer-specific information about this product when used according to the physician's directions. Pharmaceutical Agent – Handling of this product in its final form presents minimal occupational exposure risk.

Classification Of The Substance Or Mixture

Classification (GHS-US)

Not classified

Label Elements

GHS-US Labeling Not applicable

Other Hazards Not available

Unknown Acute Toxicity (GHS US) Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No.) 7732-18-5	99.13 - 99.18	Not classified
Sodium chloride	(CAS No.) 7647-14-5	0.6	Eye Irrit. 2A, H319
Sodium metabisulfite	(CAS No.) 7681-57-4	0.167	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Resp. Sens. 1B, H334 Skin Sens. 1B, H317
Epinephrine	(CAS No.) 51-43-4	0.05 - 0.1	Acute Tox. 2 (Dermal), H310 Muta. 2, H341

Full text of H-phrases: see section 16

4. FIRST AID MEASURES

Description Of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show label if possible).

Inhalation: The risk of inhalation exposure is negligible when product is in its final packaged form. If exposed and become symptomatic, move to fresh air and get medical attention if symptoms persist.

Skin Contact: Basic hygiene and appropriate precautions should prevent skin contact. If skin contact occurs, wash affected area with soap and water for at least 15 minutes. Should skin irritation, allergic reaction, or rash occur, remove contaminated clothing (if required) and seek medical advice.

Eye Contact: The risk of eye exposure is negligible when product is in its final packaged form. If eye contact occurs, flush immediately with water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Ingestion: Ingestion is not an anticipated route of exposure. If accidental ingestion occurs, flush mouth out with water and get medical attention.

Most Important Symptoms And Effects Both Acute and Delayed

General: Effects reported during consumer use include palpitations, tachycardia, sweating, nausea, vomiting, respiratory difficulty, pallor, dizziness, weakness, tremor, headache, apprehension, nervousness and anxiety.

Inhalation: Inhalation of vapor and/or mist may cause respiratory irritation and sensitization.

Skin Contact: May cause skin irritation and sensitization. This product contains sodium metabisulfite, a sulfite that may cause allergic-type reactions.

Eye Contact: May cause eye irritation.

Ingestion: May cause nausea, vomiting and diarrhea.

Injection: Epinephrine is a strong vasoconstrictor; therefore accidental injection into the digits, hands or feet may result in loss of blood flow to the affected area. Large doses or accidental intravenous injection may result in cerebral hemorrhage due to sharp rise in blood pressure. This product contains sodium metabisulfite, a sulfite that may cause allergic-type reactions.

Indication Of Any Immediate Medical Attention And Special Treatment Needed

If exposed or concerned, get medical advice and attention. In the event of accidental injection, go immediately to the nearest emergency room.

5. FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream.

Special Hazards Arising From The Substance Or Mixture

Fire Hazard: Not flammable

Explosion Hazard: Product is not explosive

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice For Firefighters

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Not available

Other Information: Refer to Section 9 for flammability properties.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment And Emergency Procedures

General Measures: Avoid all eye and skin contact and do not breathe vapor and mist.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods And Material For Containment And Cleaning Up

Methods For Cleaning Up: For small quantities associated with normal therapeutic use, collect spillage and transfer to a closed waste container for disposal. For large or bulk quantities, after absorption with inert material, collect spillage by sweeping up spilled material and place in a labeled, sealed container for proper disposal.

Reference To Other Sections

See Heading 8, Exposure Controls and Personal Protection.

7. HANDLING AND STORAGE

Precautions For Safe Handling

Patients/Consumers: Patients should adhere to the instructions provided within the product information insert or product label for appropriate consumer-specific information about this product when used according to the physician's directions.

Hygiene Measures: This SDS is for a pharmaceutical agent – Handling of this product in its final form presents minimal occupational exposure risk. In an occupational setting, handle in accordance with good industrial hygiene and safety procedures. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use appropriate personal protective equipment when handling and observe good personal hygiene measures after handling.

Conditions For Safe Storage, Including Any Incompatibilities

Storage Conditions: Keep container closed when not in use. Keep away from heat and direct sunlight. Do not refrigerate.

Storage Temperature: 20-25°C (68-77°F)

Special Rules on Packaging: Examine clear window of autoinjector unit periodically. Solution should be clear. If the solution is discolored or contains solid particles (precipitate), replace the unit.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Sodium metabisulfite (7681-57-4)

USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
Alberta	OEL TWA (mg/m ³)	5 mg/m ³
British Columbia	OEL TWA (mg/m ³)	5 mg/m ³
Manitoba	OEL TWA (mg/m ³)	5 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	5 mg/m ³
New Foundland & Labrador	OEL TWA (mg/m ³)	5 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	5 mg/m ³
Nunavut	OEL STEL (mg/m ³)	10 mg/m ³
Nunavut	OEL TWA (mg/m ³)	5 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	10 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	5 mg/m ³
Ontario	OEL TWA (mg/m ³)	5 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	5 mg/m ³
Québec	VEMP (mg/m ³)	5 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	10 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	5 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Not generally required. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal Protective Equipment: Not generally required when using this product. The use of personal protective equipment may be necessary as conditions warrant.

Hand Protection: Not required for normal conditions of use.

Eye Protection: In laboratory, medical or industrial settings, or operations in which airborne particulates will be generated, safety glasses with side shields are recommended.

Skin and Body Protection: In laboratory, medical or industrial settings, impervious disposable gloves and protective clothing are recommended if skin contact with drug product is possible.

Respiratory Protection: When manufacturing or handling product in large quantities and dusts or particulates may be generated, maintain airborne concentrations below recommended limits. Workplace risk assessments should be completed before specifying and implementing respirator usage. NIOSH/MSHA approved respirators for protection should be used if respirators are found to be necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information On Basic Physical And Chemical Properties

Physical state	: Liquid
Appearance	: Clear, Colorless
Odor	: Odorless
Odor threshold	: Not available
pH	: 2.2 - 5
Relative evaporation rate (butyl acetate=1)	: Not available
Melting point	: Not available
Freezing point	: Not available

Boiling point	: $\approx 100^{\circ}\text{C}$ (212°F)
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower flammable limit	: Not available
Upper flammable limit	: Not available
Vapor pressure	: Not available
Relative vapor density at 20 °C	: Not available
Relative density	: ≈ 1 (water=1)
Specific gravity density	: Not available
Solubility	: Soluble in water
Log Pow	: Not available
Log Kow	: Not available
Viscosity, kinematic	: Not available
Viscosity, dynamic	: Not available
Explosion data - sensitivity to mechanical impact	: Not available
Explosion data - sensitivity to static discharge	: Not available

10. STABILITY AND REACTIVITY

Reactivity Hazardous reactions will not occur under normal conditions.

Chemical Stability Stable under normal conditions.

Possibility Of Hazardous Reactions Hazardous polymerization will not occur.

Conditions To Avoid Direct sunlight. Extremely high or low temperatures. Epinephrine deteriorates rapidly on exposure to air or light.

Incompatible Materials Strong acids. Strong bases.

Hazardous Decomposition Products Not applicable

11. TOXICOLOGICAL INFORMATION

Information On Toxicological Effects - Product

Acute Toxicity Not classified

LD50 and LC50 Data Not available

Aspiration hazard: Not classified

Skin corrosion/irritation: Not classified (pH: 2.2 – 5)

Serious eye damage/irritation: Not classified (pH: 2.2 – 5)

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Information On Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

Sodium chloride (7647-14-5)	
LD50 oral rat	3 g/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> 42 g/m ³ (Exposure time: 1 h)
ATE (oral)	3000 mg/kg
Sodium metabisulfite (7681-57-4)	
LD50 oral rat	1131 mg/kg
LD50 dermal rat	> 2 g/kg
ATE (oral)	1131 mg/kg
Epinephrine (51-43-4)	
LD50 dermal rat	62 mg/kg
ATE (dermal)	62 mg/kg

Sodium metabisulfite (7681-57-4)	
IARC group	3

12. ECOLOGICAL INFORMATION

Toxicity

Sodium chloride (7647-14-5)	
LC50 fish 1	5560 - 6080 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 1	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	340.7 - 469.2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Sodium metabisulfite (7681-57-4)	
LC50 fish 1	32 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	89 mg/l (Exposure time: 24 h - Species: Daphnia magna Straus)
EC50 other aquatic organisms 1	48 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
EC50 other aquatic organisms 2	40 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)

Persistence And Degradability

EpiPen® and EpiPen® Jr	
Persistence and degradability	Not established.

Bioaccumulative Potential

EpiPen® and EpiPen® Jr	
Bioaccumulative potential	Not established.

Sodium chloride (7647-14-5)	
BCF fish 1	(no bioaccumulation)

Sodium metabisulfite (7681-57-4)	
Log Pow	-3.7 (at 25 °C)

13. DISPOSAL CONSIDERATIONS

Sewage Disposal Recommendations: Do not empty into drains.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Contaminated sharps should be discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and appropriately labeled. Contact your local health department for referral to a Safe Syringe Disposal Program.

14. TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN Number Not regulated for transport

UN Proper Shipping Name Not regulated for transport

15. REGULATORY INFORMATION

US Federal regulations

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Sodium chloride (7647-14-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Sodium metabisulfite (7681-57-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Epinephrine (51-43-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State regulations

Sodium chloride (7647-14-5)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	

Sodium metabisulfite (7681-57-4)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	
U.S. - Hawaii - Occupational Exposure Limits - TWAs	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations	

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
 U.S. - Massachusetts - Right To Know List
 U.S. - Michigan - Occupational Exposure Limits - TWAs
 U.S. - Minnesota - Hazardous Substance List
 U.S. - Minnesota - Permissible Exposure Limits - TWAs
 U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
 U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
 U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - New Jersey - Special Health Hazards Substances List
 U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
 U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Tennessee - Occupational Exposure Limits - TWAs
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term
 U.S. - Vermont - Permissible Exposure Limits - TWAs
 U.S. - Washington - Permissible Exposure Limits - STELs
 U.S. - Washington - Permissible Exposure Limits - TWAs
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

Epinephrine (51-43-4)

U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
 U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
 U.S. - Louisiana - Reportable Quantity List for Pollutants
 U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
 U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
 U.S. - Massachusetts - Right To Know List
 U.S. - Massachusetts - Toxics Use Reduction Act
 U.S. - Michigan - Polluting Materials List
 U.S. - Nebraska - "P" Listed Hazardous Wastes
 U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
 U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
 U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
 U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
 U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term
 U.S. - Vermont - Hazardous Waste - Acutely Hazardous Wastes
 U.S. - Vermont - Hazardous Waste - Hazardous Constituents
 U.S. - Washington - Dangerous Waste - Discarded Chemical Products List

Canadian regulations

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Sodium chloride (7647-14-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Sodium metabisulfite (7681-57-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Epinephrine (51-43-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

16. OTHER INFORMATION

Indication of Changes : 06/11/2013

Data Sources : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Other Information : This document has been prepared in accordance with standards for workplace safety. The precautionary statements and warnings included might not apply in all cases. Your needs may vary depending on the potential for exposure in your workplace.

GHS Full Text Phrases:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Muta. 2	Germ cell mutagenicity Category 2
Resp. Sens. 1B	Respiratory sensitisation Category 1B
Skin Sens. 1B	Skin sensitization Category 1B
H302	Harmful if swallowed
H310	Fatal in contact with skin
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing genetic defects

Party responsible for the preparation of this document:

Mylan Global Environmental, Health, and Safety Department

Phone Number: 304-599-2595




This MSDS has been prepared for occupational exposure and intended to address some end-user concerns; however, patients/consumers are also strongly encouraged to review the product information insert or product label for consumer-specific information about this product. Patients/Consumers: Refer to the package insert or product label for appropriate consumer-specific information about this product when used according to manufacturer's directions.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SDS US (GHS Hazcom 2012) - Mylan Pharmaceuticals



SAFETY DATA SHEET (SDS)

Section 1: IDENTIFICATION					
TRADE NAME	GEBAUER'S ETHYL CHLORIDE®	MANUFACTURER	Gebauer Company 4444 East 153 Street Cleveland, Ohio 44128		
CHEMICAL NAME	Ethyl Chloride	CONTACT INFORMATION	Toll Free: (800) 321-9348 Phone: (216) 518-3030 Fax: (216) 581-4970		
RECOMMENDED USE	Topical Anesthetic	IN CASE OF EMERGENCY	CHEMTREC - (800) 242-9300 or (703) 527-3887		
FORMULA	C ₂ H ₅ Cl	CHEMICAL FAMILY	Halogenated Hydrocarbon		
Section 2: HAZARDS IDENTIFICATION					
Health Rating		2 - Moderate			
Flammability Rating		4 - Acute			
Reactivity Rating		0 - None			
Special Rating		None			
Lab Protective Equipment		Neoprene or Viton gloves, lab coat, goggles or face shield, vent hood.			
Storage Color Code		Red (Flammable)			
Hazard Category	Signal Word	Hazard Statement	Pictogram	Precautionary Statement	
Flammable Gas (Category 1)	Danger	Extremely flammable gas		Keep away from heat/sparks/open flames/hot surfaces/cautery equipment – No smoking.	
Compressed Gas	Warning	Contains gas under pressure; may explode if heated		Store in a well-ventilated place.	
Eye Irritation (Category 2B)	Warning	Causes eye irritation	N/A	If product gets into eyes, see the Section 4: First Aid Measures.	
Acute Toxicity (Category 4)	Warning	Harmful if inhaled		If inhaled, see the Section 4: First Aid Measures.	
Cause		Effects			
Potential Acute Health Effects	Inhalation	Headache, dizziness, nausea, vomiting, loss of coordination and disorientation may produce narcotic and anesthetic effects. May produce central nervous system depression, respiratory paralysis, or fatal coma with respiratory or cardiac arrest. May sensitize the myocardium to endogenous epinephrine, causing dangerous dysrhythmias. Although absorbed through lungs and skin, it also is rapidly given off through the lungs.			
	Ingestion	Unlikely route of exposure due to gaseous nature.			
	Skin Contact	Rapid evaporation of liquid may cause frostbite. Symptoms of frostbite are blanching of the skin, cold feeling numbness. Cutaneous sensitization may occur, but is extremely rare. Freezing can occasionally alter pigmentation. A single prolonged skin exposure is not likely to result in absorption of harmful amounts			
	Chronic Exposure	Long term exposure to high levels may produce the following: loss of muscle coordination, involuntary eye movements, tremors, speech disturbance, sluggish reflexes and hallucinations. These symptoms are alleviated when the overexposure is ended.			
	Aggravation of Preexisting Conditions	The defatting properties of Ethyl Chloride may aggravate existing dermatitis.			
Section 3: COMPOSITION / INFORMATION ON INGREDIENTS					
Ingredient	Synonyms	CAS Number	Concentration	OSHA PEL	ACGIH TLV-TWA
Ethyl Chloride	Chloroethane, Hydrochloric Ether	75-00-3	>99	1000ppm	100ppm
Section 4: FIRST AID MEASURES					
Inhalation	Immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician.				
Ingestion	Unlikely route of exposure due to gaseous nature.				
Skin Contact	For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). In case of massive exposure, remove contaminated clothing while showering with warm water. Call a physician.				
Eye Contact	For exposure to liquid, check for and remove any contact lenses. Immediately flush eyes thoroughly with warm water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. See a physician, preferably an ophthalmologist, immediately.				

Section 5: FIRE FIGHTING MEASURES

Special Fire Fighting Procedures

DANGER! Flammable liquid and gas. Evacuate all personnel from danger area. Use water spray to cool fire-exposed containers, structures and equipment. Use water spray, carbon dioxide or dry chemicals as extinguishing media. Do not use stream of water because it will scatter and spread the fire. Remove sources of ignition if without risk. Remove all containers from fire area if without risk; continue cooling water spray while moving containers. Do not extinguish any flames emitted from containers, stop flow of material if without risk, or allow flames to burn out. Self contained breathing apparatus may be required by rescue workers.

Unusual Fire and Explosion Hazards

Flammable liquid and gas. Very dangerous fire hazard when exposed to heat, flame or powerful oxidizers. Ethyl chloride is heavier than air and the vapors may hug the ground, making distant ignition and flashback possible. During a fire, toxic gases (hydrogen chloride, chlorine and phosgene) may be produced. Direct exposure to flames may cause container explosion. Static discharge may ignite ethyl chloride.

Section 6: ACCIDENTAL RELEASE MEASURES

Spill and Leak Response

Flammable liquid and Gas. Eliminate all sources of ignition. Allow spilled ethyl chloride to evaporate, ventilate enclosed areas. In case of large spill, evacuate all personnel from area. For Entry Into Unknown Concentrations That Could Be IDLH (≥ 3800 ppm): Full Face Self Contained Breathing Apparatus

Waste Disposal Method

Comply with federal, state and local laws; return unused quantities to Gebauer Company by making appropriate arrangements for pickup and transportation.

Section 7: HANDLING AND STORAGE

Storage Precautions

Store in cool, dry well ventilated area. Protect against physical damage. Do not subject to temperatures above 120°F (50°C). Do not store near high frequency ultrasound equipment or non-explosion proof electrical equipment.

Handling Precautions

Use in well-ventilated areas. Do not use near temperatures above 120°F (50°C). Do not use with cautery or non-explosion proof electrical equipment. Do not use near open flame.

Section 8: EXPOSURE CONTROLS – PERSONAL PROTECTION

Engineering Controls

Use with adequate ventilation.

Respiratory Protection

For clinical setting: minimize inhalation of vapors by patient, especially when applying to head and neck. For large spills (≥ 1000 ppm twa and ≤ 3800 ppm instantaneous exposure): full face, positive pressure, self-contained breathing apparatus should be available for emergency use.

Skin Protection

Wear neoprene or viton gloves for exposures ≥ 1000 ppm TWA and ≤ 3800 ppm instantaneous exposure.

Eye Protection

Splash goggles or safety glasses.

Exposure Limits

OSHA – 1000ppm PELACGLIH – 100 ppm TLV, A3 IDHL – 3800 ppm LEL ACGIH – 100ppm TLV

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	54.1°F (12.3°C)	Specific Gravity (@ 68°F):	0.8939
Freezing Point:	-213.5°F (-136.4°C)	pH:	Essentially neutral
Evaporation Rate (Butyl Acetate = 1):	Greater than 1	Solubility in Water	Slight by slow hydrolysis
Vapor Density (Air = 1 @ 70°F):	2.23	Odor:	Ethereal
Vapor Pressure (@ 68°F):	20.1 psia (5.4 psig)	Appearance:	Clear and colorless liquid or gas
Flash Point:	-58°F (-50°C) TCC; -45°F (-43°C) TOC	Flammable Limits in Air (% by volume):	Lower: 3.8% Upper: 15.4%
Autoignition Temperature:	966°F (519°C)	MOLECULAR WEIGHT	64.52

Section 10: STABILITY AND REACTIVITY

Stability	Normally stable in air. In presence of moisture, slowly hydrolyses forming hydrochloric acid.
Hazardous Decomposition Products	Carbon monoxide, hydrogen chloride gas, phosgene gas, and carbon dioxide.
Incompatible Materials	Alkali metals such as sodium, and potassium, powdered metals such as aluminum, zinc and magnesium and strong oxidizers.
Hazardous Polymerization	Not expected to occur.
Conditions to Avoid	Contact with incompatible materials and exposure to heat, sparks and other sources of ignition and exposure to high heat.

Section 11: TOXICOLOGICAL INFORMATION

Routes of Exposure:	Acute Inhalation LC50 60,632 ppm (rat) (2 hr.) Anesthetic effects. Skin Irritation Produces frostbite. Eye Irritation Produces frostbite. Chronic Effects Not listed as a carcinogen or suspected carcinogen by NTP or OSHA. Listed under IARC in Group 3: Not classifiable.
Effects of overexposure:	Inhalation: Can produce varying degrees of intoxication; i.e. loss of coordination, drunkenness, possible convulsions, abdominal cramps, nausea and coma. It has been reported that concentrated vapors can produce narcotic and anesthetic effects in humans and may produce deep or even fatal anesthesia. Inhalation may also be irritating to the respiratory tract. Eye/Skin: Liquid spilled on skin may cause possible frostbite. For eye contact, there are no specific known effects, but the effects may be the same as contact with skin.
Acute	
Sub Chronic	Increased liver weights were observed in rats and mice after exposure to 2500, 5000, 10,000 and 19,000 ppm for 6 hours/day, 5 days/week for 13 weeks. No other effects were observed in the study.
Carcinogenicity	Carcinomas of the uterus were observed in female mice exposed to 15,000 ppm during the course of a 2-year inhalation study.

Section 11: TOXICOLOGICAL INFORMATION (Continued)			
Mutagenesis	Has been shown to be mutagenic in bacteria, with and without activation. A 2-year study in mice did not yield increases in bone marrow micronuclei.		
Reproductive/Developmental	No teratogenic effects were observed in mice exposed to 500, 1500 or 5000 ppm during organogenesis. No effects on reproductive organs were observed after 13 weeks exposure to vapors.		
Section 12: ECOLOGICAL INFORMATION			
Environmental Stability	Gas is dissipated rapidly in a ventilated area.		
Effect on Plants and Animals	Suspected to have toxic effects with long term exposure to: central nervous system depression, liver and kidney. No information on adverse effects to plant life except for frost produced upon evaporation.		
Effect on Aquatic Life	No evidence currently available.		
Section 13: DISPOSAL CONSIDERATIONS			
Waste disposal must be in accordance with appropriate Federal, State and local regulations.			
Section 14: TRANSPORT INFORMATION			
Proper Shipping Name	Ethyl Chloride		
Hazard Class	2.1 (Flammable Gas)		
Identification Number	UN 1037		
Packing Group	I (49 CFR 173.322)		
Reportable Quantity	100 LBS./45.4 Kg		
DOT Label(s) Required	Flammable Gas		
Canada TDG Description	Ethyl Chloride, Class 2.1, UN1037 **Special Commodity**		
Section 15: REGULATORY INFORMATION			
USA TSCA:	Listed	Canada DSL:	Listed
Europe EINECS:	Listed	Australia AICS:	Listed
Korea ECL:	Listed	Japan MITI (ENCS):	Listed
SARA Title III	Section 302: Not listed. Sections 311, 312: Acute health hazard. Section 313: Listed.		
CERCLA	Listed with a reportable quantity of 100 lbs.		
State Regulatory Information:	Alaska California Florida Massachusetts Michigan Minnesota Missouri New Jersey New York Pennsylvania Rhode Island Texas West Virginia Wisconsin	Designated Toxic and Hazardous Substances Permissible Exposure Limits for Chemical Contaminants Substance List Substance List Critical Materials Register List of Hazardous Substances Employer Information/Toxic Substance List Right to Know Hazardous Substance List Hazardous Substance List Regulated Substance List Hazardous Substance Hazardous Substance List Hazardous Substance List Toxic and Hazardous Substances	CANADA Regulations (WHMIS): Class A – Compressed Gas Class B1 – Flammable Gas Canadian NPRI – Listed EUROPEAN UNION CLASSIFICATION: Hazard Symbol: F+; Xn Risk Phrases: R12-40-52/53 Safety Phrases: S(2-) 9-16-33-36/37-61
California Proposition 65:	Ethyl Chloride is on the California Proposition 65 lists. This product contains a chemical known to the State of California to cause cancer.		
Section 16: OTHER INFORMATION			
This MSDS was revised and updated as of 04/23/2013 by Gebauer Company.			
INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET IS OFFERED WITHOUT CHARGE FOR USE BY TECHNICALLY QUALIFIED PERSONNEL AT THEIR DISCRETION AND RISK. ALL STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON TESTS AND DATA WHICH WE BELIEVE TO BE RELIABLE, BUT THE ACCURACY OR COMPLETENESS THEREOF IS NOT GUARANTEED AND NO WARRANTY OF ANY KIND IS MADE WITH RESPECT THERETO. THIS INFORMATION IS NOT INTENDED AS A LICENSE TO OPERATE UNDER OR A RECOMMENDATION TO PRACTICE OR INFRINGE ANY PATENT OF THIS COMPANY OR OTHER COVERING ANY PROCESS, COMPOSITION OF MATTER OR USE. SINCE THE COMPANY SHALL HAVE NO CONTROL OF THE USE OF THE PRODUCT DESCRIBED HEREIN, THE COMPANY ASSUMES NO LIABILITY OF LOSS OR DAMAGE INCURRED FROM THE PROPER OR IMPROPER USE OF SUCH PRODUCT.			



SAFETY DATA SHEET

1. Identification

Product identifier	Everwipe Disinfecting Wipes 75ct (101075)
Product code	
Recommended use	Disinfecting Wipe
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	Legacy
Address	1 Advantage Court Bordentown, NJ 08505
Telephone	1-800-521-4190

2. Hazard(s) identification

Physical hazards		
Health hazards	Flammable liquids	Category 4
Environmental hazards	Serious eye damage/eye irritation	Category 2B
	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	
Label elements		
Hazard symbol	None.	
Signal word	Warning	
Hazard statement	Combustible liquid. Causes eye irritation. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/eye protection/face protection.	
Response	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.	
Storage	Store in a well-ventilated place. Keep cool.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	Not applicable.	

3. Composition/information on ingredients

Mixtures			
Chemical name	Common name and synonyms	CAS number	%
Tetra sodium ethylenediamine tetra acetic acid (Na4 EDTA)		64-02-8	1 - < 3
_Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride (Alternate CAS 68956-79-6)		85409-23-0	< 0.2
_Alkyl dimethyl benzyl ammonium chloride (C12-18)		68391-01-5	< 0.2
Other components below reportable levels			90 - 100

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Exposed individuals may experience eye tearing, redness, and discomfort.
Indication of immediate medical attention and special treatment needed	If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p> <p>Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.</p>
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.
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Conditions for safe storage, including any incompatibilities

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL. PESTICIDE STORAGE: Store in a dry place no lower in temperature than 50°F or higher than 120°F. Keep away from heat, sparks and open flame. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear protective gloves.
Skin protection	
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid saturated on wipe.
Color	clear-hazy liquid on wipe
Odor	Lemon
Odor threshold	Not available.
pH	10.5 – 12.5
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	196.6 °F (91.4 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available
Density	8.38 lb/gal

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Reacts violently with strong acids. This product may react with oxidizing agents. Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes mild skin irritation.
Eye contact	Causes eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Exposed individuals may experience eye tearing, redness, and discomfort.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Causes mild skin irritation.
Serious eye damage/eye irritation	Causes eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not applicable.
Specific target organ toxicity - repeated exposure	Not applicable.
Aspiration hazard	Not applicable.

12. Ecological information

Ecotoxicity	Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
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Components		Species	Test Results
Tetra sodium ethylenediamine tetra acetic acid (Na4 EDTA) (CAS 64-02-8)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	472 - 500 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component
Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

13. Transport information

General	Note - Shipper/offendor is responsible for confirming appropriate proper shipping name, hazard classification(s), packing group, marking, labeling, placarding, packaging, and other regulatory requirements applicable to packages offered for transport. These requirements may vary depending on the quantity of material, packaging, mode of transportation, and carrier.
DOT	
UN number	NA1993
UN proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (Ethanol)
Transport hazard class(es)	
Class	Combustible Liquid
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.
DOT	



14. Regulatory information

US federal regulations	This product is a U.S. EPA registered pesticide.
	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
CERCLA Hazardous Substance List (40 CFR 302.4)	
	Not listed.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
	Not listed.
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	SARA 311/312 Hazardous chemical SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Acetaldehyde	75-07-0	< 0.1

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

FIFRA Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word

CAUTION

Hazard statement

Causes moderate eye irritation.

US state regulations**US. Massachusetts RTK - Substance List**

Not regulated.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Acetaldehyde (CAS 75-07-0)

Listed: April 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

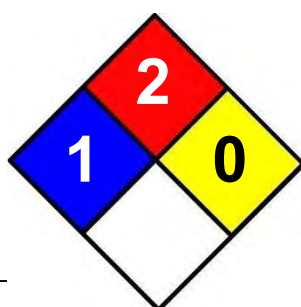
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

15. Other information, including date of preparation or last revision

Issue date 4/6/20

Version # 001

NFPA ratings

Disclaimer

Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.



Safety Data Sheet

Issue Date: 23-Aug-2012

Revision Date: 07-May-2014

Version 1

1. IDENTIFICATION

Product Identifier

Product Name GBG AloeGel[®] Instant Hand Sanitizer

Other means of identification

Product Code 7777, 7776, 7775, 7774
UN/ID No UN1993

Recommended use of the chemical and restrictions on use

Recommended Use Hand degermer.

Emergency Telephone Number

Emergency Telephone (24 hr) Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Appearance Clear green gel

Physical State Gel

Odor Aloe

Classification

Flammable Liquids

Category 2

Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor



Precautionary Statements - Prevention

Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - ResponseIN CASE OF FIRE: Use CO₂, dry chemical, or foam for extinction**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Ethyl Alcohol	64-17-5	65

4. FIRST-AID MEASURES**First Aid Measures**

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
Skin Contact	None under normal use conditions.
Inhalation	None under normal use conditions.
Ingestion	Give large quantities of water. Do not induce vomiting. Get medical attention.

Most important symptoms and effects

Symptoms	Can cause eye irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**Water. Foam. Carbon dioxide (CO₂).**Unsuitable Extinguishing Media** Not determined.**Specific Hazards Arising from the Chemical**

Flammable.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Flood area with water and then mop up. Dispose of in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Do not destroy or deface the label. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Ground/bond container and receiving equipment. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store containers upright.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl Alcohol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Trade Secret	TWA: 5 ppm S*	TWA: 5 ppm TWA: 20 mg/m ³ (vacated) TWA: 5 ppm (vacated) TWA: 20 mg/m ³ (vacated) S* S*	IDLH: 200 ppm TWA: 5 ppm TWA: 20 mg/m ³
Trade Secret	-	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction (vacated) TWA: 10 mg/m ³ mist, total particulate (vacated) TWA: 5 mg/m ³ mist, respirable fraction	-

Appropriate engineering controls

Engineering Controls None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes.

Skin and Body Protection No protective equipment is needed under normal use conditions.

Respiratory Protection No protective equipment is needed under normal use conditions.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Gel	Odor	Aloe
Appearance	Clear green gel	Odor Threshold	Not determined
Color	Green		
Property	Values	Remarks • Method	
pH	7.0		
Melting Point/Freezing Point	Not available		
Boiling Point/Boiling Range	Not determined		
Flash Point	18 °C / 65 °F		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	n/a-liquid		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	Not available		
Vapor Density	Not determined		
Specific Gravity	0.89400	(1=Water)	
Water Solubility	Completely soluble		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Heat, flames and sparks.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Not expected to be a skin irritant during prescribed use.
Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Ingestion	Do not taste or swallow.

Component Information

<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
Ethyl Alcohol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Trade Secret	> 5 g/kg (Rat)	-	-
Trade Secret	= 420 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	> 5.3 mg/L (Rat) 4 h
Trade Secret	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h
Trade Secret	> 10000 mg/kg (Rat)	= 5 g/kg (Rabbit)	> 41 mg/L (Rat)

Information on physical, chemical and toxicological effects

Symptoms	Please see section 4 of this SDS for symptoms.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity**

Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethyl Alcohol 64-17-5	A3	Group 1	Known	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethyl Alcohol 64-17-5		12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through		9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
Trade Secret	20: 96 h Pseudokirchneriella subcapitata mg/L EC50 20: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	150 - 223: 96 h Brachydanio rerio mg/L LC50 semi-static 420 - 560: 96 h Oryzias latipes mg/L LC50 semi- static 37: 96 h Oncorhynchus mykiss mg/L LC50 1000: 96 h Poecilia reticulata mg/L LC50 semi-static		25.8: 24 h Daphnia magna mg/L EC50
Trade Secret		51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static		
Trade Secret	100: 72 h Desmodesmus subspicatus mg/L EC50	8400: 96 h Brachydanio rerio mg/L LC50 semi-static 8400: 96 h Brachydanio rerio mg/L LC50		100: 48 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Ethyl Alcohol 64-17-5	-0.32

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Ethyl Alcohol 64-17-5	Toxic Ignitable

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN1993
Proper Shipping Name	Flammable liquid, n.o.s. (ethanol)
Hazard Class	3
Packing Group	II

IATA

UN/ID No	UN1993
Proper Shipping Name	Flammable liquid, n.o.s. (ethanol)
Hazard Class	3
Packing Group	II

IMDG

UN/ID No	UN1993
Proper Shipping Name	Flammable liquid, n.o.s. (ethanol)
Hazard Class	3
Packing Group	II
Marine Pollutant	This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

TSCA Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Ethyl Alcohol - 64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethyl Alcohol 64-17-5	X	X	X
Trade Secret	X	X	X
Trade Secret	X	X	X

16. OTHER INFORMATION

NFPA

Health Hazards

Flammability

Instability

Special Hazards

HMIS

Health Hazards

Flammability

Physical Hazards

Personal Protection

1

4

0

A = Goggles

Issue Date: 23-Aug-2012
 Revision Date: 07-May-2014
 Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

1. Identification

Product identifier Glucagon™

Other means of identification

Item Code

MS8009, VL0660, VL7519, VL7286, AM0668, UC9527, AM7220, MS8085, AM0666, MS8031, VL7166, VL7220, MS8030, VL0666, MS8239, AM7078, VL7529

Recommended use Pharmaceutical

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name

Eli Lilly and Company

Address

Lilly Corporate Center
Indianapolis, IN 46285
United States

Telephone

Phone: +1-317-276-2000

E-mail

lilly_msds@lilly.com

Emergency phone number

CHEMTREC: +1-800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol

None.

Signal word

None.

Hazard statement

The mixture does not meet the criteria for classification.

Precautionary statement

Prevention

Not available.

Response

Not available.

Storage

Not available.

Disposal

Not available.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Glucagon		16941-32-5	2

Composition comments Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels.

4. First-aid measures

Inhalation

Remove to fresh air. If breathing stops, provide artificial respiration. Get medical attention immediately.

Skin contact

Wash off immediately with plenty of water for at least 15 minutes. Immediately take off all contaminated clothing. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

Eye contact	Immediately flush eye(s) with plenty of water. Get medical attention.
Ingestion	Consult a physician.
Most important symptoms/effects, acute and delayed	None known.

5. Fire-fighting measures

Suitable extinguishing media	Carbon dioxide, dry chemical or water.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Hazardous decomposition products formed under fire conditions.
Special protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear suitable protective clothing, gloves and eye/face protection. See Section 8 of the SDS for Personal Protective Equipment.
Methods and materials for containment and cleaning up	Do not sweep. Collect spill using a vacuum cleaner with a HEPA filter. If vacuum is not available, lightly mist/wet material and remove by mopping or wet wiping.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	See Section 8 of the SDS for Personal Protective Equipment.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

Occupational exposure limits

Lilly (LEG) Components

	Type	Value
Glucagon (CAS 16941-32-5)	STEG (15min)	1400 ug/m3
	TWA (12hrs)	640 ug/m3
	TWA (8hrs)	640 ug/m3

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Open handling is not recommended. Use appropriate control measures such as fume hood, ventilated enclosure, local exhaust ventilation, or down-draft booth.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear goggles/face shield.
Skin protection	
Hand protection	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
Other	Not available.
Respiratory protection	Use an approved respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor.
Thermal hazards	Not available.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Lyophilized cake.
Color	White
Odor	Odorless

Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	No test data available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	No data available.
Flammability limit - upper (%)	No data available.
Explosive limit - lower (%)	No data available.
Explosive limit - upper (%)	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	Not applicable.
Other information	
Density	No data available.
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
VOC (Weight %)	Not applicable.
9.2. Other information	
Minimum Ignition Temperature	No data available.
10. Stability and reactivity	
Reactivity	Not water reactive.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing substances.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions.
11. Toxicological information	
Information on toxicological effects	
Acute toxicity	Not expected to be active orally.

Components	Species	Test Results
Glucagon (CAS 16941-32-5)		
Acute		
Other		
	Mouse	300 mg/kg Intravenous (No mortality. No toxicity)
	Rat	300 mg/kg Subcutaneous (No mortality)
		20 mg/kg Intravenous (No mortality)
Skin corrosion/irritation	Due to lack of data the classification is not possible.	
Serious eye damage/eye irritation	Due to lack of data the classification is not possible.	
Respiratory or skin sensitization		
Respiratory sensitization	Due to lack of data the classification is not possible.	
Skin sensitization	Due to lack of data the classification is not possible.	
Germ cell mutagenicity	Negative in in vitro genetic toxicity assays. (Glucagon) Due to inconclusive data the classification criteria are not met.	
Carcinogenicity	Not listed by IARC, NTP, ACGIH or OSHA. No carcinogenicity data available for this product. Due to lack of data the classification is not possible.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.		
Reproductive toxicity	Growth suppression in delivered offspring at large pharmacological doses. (Glucagon) Based on available data, the classification criteria are not met.	
Specific target organ toxicity - single exposure	Due to lack of data the classification is not possible.	
Specific target organ toxicity - repeated exposure	Animal studies have reported the following effects: Change in heart rate or rhythm. Elevated blood sugar levels. Liver effects. Kidney effects. Lung effects. (Glucagon) (Subcutaneous) Based on available data, the classification criteria are not met.	
Aspiration hazard	Not applicable.	
Further information	The following hazards may be associated with accidental or therapeutic injection: Elevated blood sugar levels.	
12. Ecological information		
Ecotoxicity	Not available.	
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential	No data available on bioaccumulation.	
Mobility in soil	Not available.	
Other adverse effects	Not available.	
13. Disposal considerations		
Disposal instructions	Dispose in accordance with all applicable regulations.	
14. Transport information		
DOT		
Not regulated as dangerous goods.		
IATA		
Not regulated as dangerous goods.		
IMDG		
Not regulated as dangerous goods.		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	This substance/mixture is not intended to be transported in bulk.	

15. Regulatory information

US federal regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	11-18-2014
Version #	01
Lilly Lab Code	Health: 0 Fire: 1 Reactivity: 0

List of abbreviations

STEG: Short Term Exposure Guideline

TWA: Time Weighted Average

Disclaimer

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:

Eli Lilly and Company

Hazard Communication

+1-317-651-9533

Ipratropium Bromide, 0.5 mg/ Albuterol Sulfate, 3.0 mg Inhalation Solution, USP

Effective Date: 02-01-2017



Revision date: 02-01-2017

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Nephron Pharmaceuticals Corporation
 4500 12th Street Extension
 West Columbia, SC 29172-3025

(803) 569-2800
 (800) 443-4313 (24 hour contact)

PRODUCT NAME: Ipratropium Bromide, 0.5 mg/ Albuterol Sulfate, 3.0 mg Inhalation Solution, USP
 COMMON NAME: Ipratropium Bromide/ Albuterol Sulfate
 CHEMICAL NAME: Ipratropium Bromide:
 8-azoniabicyclo [3, 2, 1]-octane, 3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-8-(1-methylethyl)-, bromide (endo, syn)-, (±)-, monohydrate
 Albuterol Sulfate:
 '- [tert-butylamino-methyl] -4-hydroxy-m-xilene--'-diol sulfate (2:1) (salt)

INTENDED USE: Pharmaceutical product used as bronchodilator

SECTION 2: HAZARD(S) IDENTIFICATION

ROUTE OF ENTRY: Inhalation, ingestion, eyes/skin contact.

TARGET ORGANS: Liver, GI tract, adrenals, male reproductive organs and eyes.

POTENTIAL HEALTH HAZARDS

Contraindications: Although rare, this product can cause immediate hypersensitivity in patient. Therefore, this product should not be used by patients who have had a previous allergic reaction to ipratropium bromide, albuterol sulfate or its derivatives.

Carcinogenicity: (NTP) No (IARC) No (OSHA) No

Chronic Effects: Possible hypersensitization (development of abnormal sensitivity).

SECTION 3: COMPOSITON / INFORMATION ON INGREDIENTS

NAME: Ipratropium Bromide, 0.5 mg/ Albuterol Sulfate, 3.0 mg Inhalation Solution, USP
 CAS#: 66985-17-9/ 51022-70-9
 Other Limits: Not Established
 NAME: Water for Injection
 CAS#: 7732-18-5

SECTION 4: FIRST AID MEASURES

If In Eyes: Remove contact lenses if necessary. Flush with large amounts of cool water for at least 15 minutes. Obtain medical attention if blurred vision or sensitivity to light occurs.

If On Skin: Wash affected areas with soap and water after removing contaminated clothing. Obtain medical attention if contamination is significant and/or a skin reaction is evident.

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- If Inhaled: May cause irritation and hypersensitivity (anaphylactic) in some individuals. Inhalation of a liquid preparation is not likely. Evaporation is minimal at controlled room temperatures.
- If not breathing, give artificial respiration or CPR. If breathing is difficult, give oxygen. Obtain medical attention and remove to fresh air.
- If Ingested: Move affected person to a well-ventilated area and get immediate medical attention. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration and seek medical attention.

SECTION 5: FIRE FIGHTING MEASURES

- FLASH POINT/TEST METHOD: Unknown.
- LEL/UEL: Unknown.
- SPECIAL PROPERTIES RELATED TO FIRE HAZARD: None.
- STORAGE OR HANDLING CONDITIONS TO BE AVOIDED: Extreme Heat.
- EXTINGUISHING MEDIA: Water Spray, Multipurpose Dry Chemical.
- FIRE-FIGHTING PROCEDURES: Wear full protective clothing and use self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL RESPONSE PROCEDURES (Liquid, Solid, Gas/Vapor):

Protective equipment may be necessary for spills, (See Section 8, "Exposure Controls / Personal Protection" for guidance).

For small quantities associated with normal therapeutic use, collect spillage and transfer to a closed waste container for disposal. For large or bulk quantities, collect spillage by carefully sweeping or wiping and place in a labeled, sealed container for disposal.

ACCIDENTAL RELEASE: Clean up spills immediately, observing precautions in Section 8 - "Exposure Controls / Personal Protection". Remove or decontaminate all residues in accordance with federal, state and local regulations.

SECTION 7: HANDLING AND STORAGE

- HANDLING: Avoid contact with eyes, skin, and clothing.
- STORAGE: Store between 36° and 77° F. Discard if solution becomes discolored.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: No special ventilation required.

PERSONAL PROTECTION:

- Respiratory: Not required under normal conditions of therapeutic use. See Section 5 " Fire-Fighting Measures" for respiratory protection in the event of a fire.
- Eye: Not required for recommended dosage and administration. Workers should wear adequate eye protection if splash hazard exists.
- Clothing: Adequate protective clothing should be worn to prevent occupational skin contact.
- Gloves: When routine handling or spill cleanup may result in skin contact, impermeable (e.g., latex) gloves should be worn.
- Work Practices: Special care should be taken to ensure that contaminated clothing, equipment and work surfaces are properly cleaned after use. Wash hands and other areas of skin contact thoroughly after handling this material. Contaminated clothing should be cleaned or disposed of.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Clear, aqueous solution with a little or no odor.
PHYSICAL STATE:	Liquid.
MELTING POINT:	Not determined.
BOILING POINT:	Not determined.
SOLUBILITY/MISCIBILITY (%w/v):	Not determined.

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable.
CONDITIONS TO AVOID:	Not determined.
INCOMPATIBILITY WITH OTHER MATERIALS:	Not determined. No known incompatibilities have been identified for this product.
HAZARDOUS DECOMPOSITION PRODUCTS:	Hazardous decomposition products have not been determined.

SECTION 11: TOXICOLOGICAL INFORMATION**THE RISK OF HEALTH HAZARDS MAY BE REDUCED WHEN HANDLED IN UNIT DOSAGE FORM.**

PHARMACOLOGICAL ACTIVITY:	The active component is albuterol sulfate. Albuterol sulfate is a β_2 -adrenergic bronchodilator used for the therapeutic effect of bronchial smooth muscle relaxation. This product is used for the prevention and relief of bronchospasm in patients with reversible obstructive airway disease (asthma) and for acute attacks of bronchospasm.
OCCUPATIONAL EXPOSURE LIMITS:	For products, the estimated safe working level is an eight-hour time-weighted average (TWA) of 10 mcg/m ³ .
ACUTE TOXICITY:	Overexposure to the drug in the occupational setting may result in the same adverse effects which have been observed when albuterol sulfate is used medically. (See "Repeat Dose Toxicity" and "Clinical Safety", below). Albuterol sulfate may be absorbed following ingestion, inhalation, and to a limited extent, through the skin.
REPEAT DOSE TOXICITY:	When used medically the following adverse effects have been reported: fine muscle tremors (especially the hands), muscle cramps, nausea or vomiting, headache, vertigo (dizziness), nervousness, heartburn, and rapid pulse, palpitations, and increased blood pressure. Hypersensitivity reactions (ranging from mild to life-threatening), such as urticaria (hives), skin rash, bronchospasm (constriction of the air passages in the lungs), and angioedema (swelling involving the skin and mucous membranes) have rarely occurred. In addition, albuterol sulfate may cause significant changes in blood pressure, extremely rapid heartbeat, seizures, low potassium levels, and may exacerbate the symptoms of pre-existent cardiovascular (heart and blood vessel) conditions and diabetes.
IRRITATION:	Products can cause eye irritation; avoid contact with the eyes. Products are irritating to the nose and throat.
SENSITIZATION:	Rarely, exposure to albuterol sulfate can cause an allergic rash with redness and itching of the skin. Exposure by inhalation can cause an allergic rash, difficulty breathing and swelling of the face and airways.
REPRODUCTIVE EFFECTS:	Albuterol sulfate causes birth defects in mice. Rare reports of cleft palate and limb defects have been received in offspring of patients being treated with albuterol sulfate. There are no adequate and well-controlled studies of the effects of albuterol sulfate in pregnant women. Albuterol sulfate should be used

Ipratropium Bromide, 0.5 mg/ Albuterol Sulfate, 3.0 mg Inhalation Solution, USP

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during pregnancy only if the potential benefit justifies the potential risk to the fetus. For recommended dosage and administration, Albuterol Sulfate Inhalation Solution 3.0mg is classified as "Pregnancy Category C". It is not known whether this drug is excreted in human milk. A decision should be made whether to discontinue nursing or to discontinue using the drug, taking into account the importance of the drug to the mother. Precautions should be taken to limit the exposure to Albuterol Sulfate Inhalation Solution, 3.0mg while pregnant or nursing: medical evaluation of exposure and attention to compliance with standard operating procedures and/or other workplace health and safety directives is advised.

GENOTOXICITY:

There is no evidence that albuterol sulfate is mutagenic (causing changes in genetic material) or impairs fertility in standard tests.

CARCINOGENICITY:

Albuterol sulfate was not carcinogenic in standard tests with mice and hamsters. Albuterol sulfate causes benign tumors to rats treated daily for 2 years with doses which are much greater than the recommended maximum dose for human medical use. The relevance of this finding to humans is not known.

CLINICAL SAFETY:

Individuals known to be hypersensitive to β -adrenergic agents like albuterol sulfate should not be exposed. Persons with cardiovascular disorders (including coronary artery disease, heart rhythm abnormalities and high blood pressure), seizure disorders (epilepsy) hyperthyroidism, or diabetes may experience worsening of symptoms from occupational exposure. Also, persons using Albuterol Sulfate Inhalation Solution, 3.0mg or other medications in the same therapeutic class (β_2 -adrenergic receptor agonists), or taking monoamine oxidase inhibitors or tricyclic antidepressants, may have increased sensitivity to the effects of albuterol sulfate in the occupational setting.

SECTION 12: ECOLOGICAL INFORMATION**ENVIRONMENTAL FATE:**

Albuterol compartmentalizes into the aquatic environment.

ENVIRONMENTAL EFFECTS:

Albuterol is not readily biodegradable in water or soil and is unlikely to bioaccumulate. It has toxicity to receptors in the aqueous environment at levels greater than 83.2 mg/L.

ROUTINE

Unused product should be disposed of at an approved facility in accordance with federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION**Component 1 or Formulation 1:**

Albuterol Sulfate Inhalation Solution, 3.0mg

US Department of Transportation**Proper Shipping Name:**

Pharmaceutical for Interstate Commerce

IATA/ICAO**Proper Shipping Name:**

Not Regulated

IMDG**Proper Shipping Name:**

Not Regulated

RQ: None

Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION**EC PACKAGING AND LABELING FOR SUPPLY:**

Not applicable.

OTHER LEGISLATION:

Not regulated.

Ipratropium Bromide, 0.5 mg/ Albuterol Sulfate, 3.0 mg Inhalation Solution, USP

Effective Date: 02-01-2017

SECTION 16: OTHER INFORMATION

REVISION DATE: 02-09-2015

REVISION DATE: 07-22-2004

REVISION DATE: 06-26-2014

SUPERSEDES: 01-23-2003

SUPERSEDES: 07-22-2004

TO THE BEST OF OUR KNOWLEDGE THE INFORMATION CONTAINED HEREIN IS ACCURATE AS OF THE DATE HEREOF. ANY DETERMINATION AS TO THE SUITABILITY OF THE PRODUCT FOR ANY PARTICULAR PURPOSE, ITS SAFE USE OR DISPOSAL, SHALL BE THE RESPONSIBILITY OF THE USER. THE INFORMATION CONTAINED HEREIN IS IN NO WAY INTENDED TO SUPPLEMENT, MODIFY, OR SUPERSEDE THE INFORMATION PROVIDED IN THE PRODUCT PACKAGE INSERT WITH RESPECT TO THE USE OF THE PRODUCT FOR MEDICAL PURPOSES. PLEASE REFER TO THE PRODUCT PACKAGE INSERT FOR INFORMATION REGARDING THE USE OF THE PRODUCT FOR MEDICAL PURPOSES.

Safety Data Sheet



1. IDENTIFICATION		
Product Information		
Product name	KENALOG®-10 and 40 mg/ml (triamcinolone acetonide) Injectable Suspension	
Version	1.0, 24.02.2015	
Jurisdiction	This Safety Data Sheet was prepared in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) for the United States of America (USA) (CFR 1910.1200), European Union (EU) (EC 1272/2008) and United Nations (UN). The following countries utilize the UN GHS classification process: Mexico, Brazil, China, New Zealand, Canada, Japan, Korea and Australia.	
Active substance	Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-methylethylidene)bis(oxy)]-, (11.beta.,16.alpha.)-	
Synonyms	Sterile Triamcinolone Acetonide Suspension USP; Kenalog-10 Injection; Kenalog-40 Injection; Albicort; Kenacort	
Intended Uses	This material is a finished drug product for patient use. This material is used to provide relief of inflammatory and pruritic skin conditions.	
Company/Undertaking Identification		
Address	<u>USA</u> Bristol-Myers Squibb Company P.O. Box 191 New Brunswick, New Jersey 08903 United States of America 1-800-332-2056	<u>Ireland</u> Bristol-Myers Squibb Company Swords Laboratories, Watery Lane Swords, Ireland MG-GBS-MSDS-Request@bms.com 353-1813-9456
Emergency Phone No.	USA (also Canada, Puerto Rico and the Virgin Island): 1-800-424-9300 Other Countries: See "Section 16" for country-specific emergency phone numbers from CHEMTREC.	<u>Ireland</u> : 353-1813-9456

2. HAZARDS IDENTIFICATION	
Classification and Labelling Common to All Jurisdictions	
Classification	Toxic To Reproduction - Reproductive Toxicity - Category 1A Toxic To Reproduction - Developmental Toxicity - Category 1A Effects On Or Via Lactation
Symbol	
Signal Word	Danger
Hazard Statements	May damage fertility (male reproductive toxicity, female reproductive toxicity) . May damage the unborn child (developmental toxicity) . May cause harm to breast-fed children.
Precautionary	Do not breathe dust.

KENALOG®-10 and 40 mg/ml
(triamcinolone acetonide) Injectable
Suspension

Bristol-Myers Squibb Company
000000000782

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2. HAZARDS IDENTIFICATION

Statements	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact during pregnancy/while nursing. Use personal protective equipment as required.
Classification and Labelling for Specific Jurisdictions	
USA	
Classification	Specific Target Organ Systemic Toxicity (Repeated Exposure) - Category 1
Hazard Statements	Causes damage to organs (adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin) through prolonged or repeated exposure.
Precautionary Statements	Wash thoroughly after handling. Do not eat, drink or smoke when using this product.
EU	
Classification	Specific Target Organ Systemic Toxicity (Repeated Exposure) - Category 2
Hazard Statements	May cause damage to organs (adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin) through prolonged or repeated exposure.
UN	
Classification	Specific Target Organ Systemic Toxicity (Repeated Exposure) - Category 1
Hazard Statements	Causes damage to organs (adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin) through prolonged or repeated exposure.
Precautionary Statements	Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	Concentration	CAS No.	EU only		
			EC No./REACH Registration No.	Symbol(s)/ R-phrases	H-code(s)
<i>Hazardous components</i> Triamcinolone Acetonide	1 - 4 %	76-25-5	200-948-7	T: R60, R61, R64, R66	H360F H360D H362 H372
Benzyl Alcohol	<= 1 %	100-51-6	202-859-9	Xn: R20/22	H302 H332

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					H335
<i>Other ingredients</i>					
Non-Hazardous Ingredients	> 90 %	Not available	--	--	--
Other information: Sodium hydroxide and/or hydrochloric acid are used for pH adjustment. See section 16 for Symbol, R-phrases and H-code text.					

4. FIRST AID MEASURES

Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. If exposed or concerned: Get medical attention/advice.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Discard contaminated clothing or wash before re-use. If exposed or concerned: Get medical attention/advice.
Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. If exposed or concerned: Get medical attention/advice.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If exposed or concerned: Get medical attention/advice.
Notes to Physician	Medical conditions aggravated include: diabetes, liver disorders, infection, immunodeficiency, hypertension, myasthenia gravis, osteoporosis, peptic ulcer, psychotic disorders, colitis, kidney disorders. This product has been reported to interact with the following medications: diuretic, cyclosporine, immunosuppressants, NSAID (non-steroidal antiinflammatory drugs), drugs metabolized by cytochrome P-450, drugs that cause hyperglycemia, oral hypoglycemic drugs, neuromuscular blocking agents, fluoroquinolone antibiotics, certain vaccines, drugs that inhibit cytochrome P-450. Refer to Section 11.
Medical Surveillance	The need for a pre-placement physical examination and history for employees with potential exposure to this compound is to be evaluated by a physician that is thoroughly knowledgeable about both the toxicity of this compound and the extent of work place exposure. Baseline testing would include: blood glucose test, a complete blood count with differential, a blood test for liver function, a blood test for kidney function. Based on opportunity for exposure and duration of exposure a periodic follow-up examination may be considered. Employees who are pregnant, are breast-feeding, or who are concerned with other reproductive issues should be encouraged to consult with the occupational health physician monitoring worker's health.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not available
Extinguishing Media	Suitable extinguishing media: Dry chemical, Water spray, Foam Unsuitable extinguishing media: Do NOT use water jet.
Protection of Firefighters	Specific hazards: Refer to HAZARDS IDENTIFICATION section for a description of hazards for this material. Protective equipment: Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus. Hazardous Combustion Products: carbon oxides (COx), hydrogen halides Further Information: HCl gas can form flammable or explosive mixtures with alcohols or metals. In the event of fire and/or explosion do not breathe fumes.
Other information	Decontaminate protective clothing and equipment before reuse.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Examples include tightly fitting safety goggles, lab coat and impervious gloves. Wear respiratory protection. Depending on the nature of the spill (quantity and extent of spill) additional protective clothing and equipment such as a self-contained breathing apparatus may be needed.
Environmental precautions	Prevent release to drains and waterways. Prevent release to the environment.
Containment Methods	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Cleanup Methods	Contain and collect spillage and place in container for disposal according to local regulations (see Section 13). Clean area with detergent and water after spill pick-up, if appropriate. Handle waste materials, including gloves, protective clothing, contaminated spill cleanup material, etc., as appropriate for chemically and pharmacologically similar materials.

7. HANDLING AND STORAGE

Handling Precautions	Avoid exposure - obtain special instructions before use. Avoid inhalation of vapour or mist. Keep away from heat and sources of ignition. Prevent release to drains and waterways.
Container Requirements	Store in sturdy containers appropriate to maintain the integrity of this material for its intended use. Store in spill containment pallet or other device to confine spills.
Storage Conditions	Store at room temperature. Protect against light. Keep away from heat, sparks and flames. Store locked up.
Specific use(s)	Refer to Section 1

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)	Company Guideline	ACGIH	Germany OEL	UK MEL
Triamcinolone Acetonide	1 µg/m ³ 8 hour-TWA (Skin)	--	--	--
Benzyl Alcohol		--	--	--
Sodium Hydroxide		2 mg/m ³ Ceiling	--	--
Hydrochloric Acid		2 ppm Ceiling	5 ppm MAK 7.6 mg/m ³ MAK 2 ppm TWA 3 mg/m ³ TWA 4 ppm Peak 6 mg/m ³ Peak 2 ppm MAK 3.0 mg/m ³ MAK	5 ppm STEL 1 ppm TWA 2 mg/m ³ TWA

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Benzyl Alcohol	Occupational Exposure Limits have been established by: - Czech Republic - Poland - Latvia
Sodium Hydroxide	Occupational Exposure Limits have been established by: - Austria - Belgium - Switzerland - Czech Republic - Denmark - Estonia - Spain - Finland - France - Greece - Hungary - Ireland - Norway - Poland - Portugal - Sweden - Latvia
Hydrochloric Acid	Occupational Exposure Limits have been established by: - Austria - Belgium - Switzerland - Czech Republic - Denmark - Estonia - Spain - Finland - France - Greece - Hungary - Ireland - Italy - The Netherlands - Norway - Poland - Portugal - Sweden - Latvia
Recommended Industrial Hygiene Monitoring Methods	Contact the Bristol-Myers Squibb AIHA accredited Industrial Hygiene Laboratory at (USA) 732-227-6338. General - The health hazard risk of handling this material is dependent on many factors, including physical form, % API in material being handled, duration and frequency of process task, and effectiveness of controls. If it is necessary to handle this compound outside of engineering controls, an exposure risk assessment should be conducted and procedures documented by a qualified EHS professional.

EXPOSURE CONTROLS / PERSONAL PROTECTION FOR MATERIAL AS SUPPLIED

This formulation contains an active pharmaceutical ingredient (API) with the guideline limit noted above. To keep the API below the recommended guideline, the material as supplied should be controlled during handling to limit total airborne aerosol exposure to: 25 µg/m³.

Engineering Controls and Ventilation	FOR MANUFACTURING PROCESSES (BULK): Use process enclosures, containment technology, or other engineering controls to keep airborne levels below recommended exposure limit. When handling quantities up to 150 milligrams, a standard laboratory with general laboratory dilution ventilation (e.g. 6-12 air changes per hour) is appropriate. When handling quantities from 150 milligrams to 1 kilogram, work in a standard laboratory using a fume hood; biological safety cabinet(Class II, all types); and, approved vented enclosure. Quantities exceeding 1 kilogram should be handled in a designated laboratory using laminar flow/powder containment booth. When handling solutions with low energy operations (pipette transfers, pouring, low velocity stirring, fraction collection, etc.) use protective shielding to limit the spread of splash or splatter. For manufacturing and pilot plant operations, use direct coupling and closed transfer systems for all bulk transfers. Use dust tight valves as appropriate. HEPA filtration of local exhaust ventilation (LEV) is required. FOR CLINICAL SETTING USE (DRUG PRODUCT): When handling small quantities in a clinical setting, good room ventilation is desirable. Specific engineering controls should not be needed.
Respiratory protection	Use and selection of respiratory protection is based upon engineering controls in use and potential for aerosol generation. When engineering controls are not sufficient control exposure, wear an approved respirator with NIOSH Class 100 or high efficiency particulate (HEPA) filters or cartridges (EN 140/EN 136) when exposures are up to 10 times the exposure control guideline. Wear a loose-fitting (Tyvek or helmet type) HEPA powered-air purifying respirator (PAPR) (EN 12941) when exposures are 10-25 times the exposure control guideline. Wear a full facepiece negative pressure respirator with Class 100 or HEPA filters (EN 136) when exposures are 25-50 times the exposure control guideline. Wear a tight-fitting, full facepiece HEPA PAPR (EN 12942) when exposures are 50-100 times the exposure control guideline. Wear a hood-shroud HEPA PAPR (EN 12941) or full facepiece supplied air respirator (EN 139) operated in a pressure demand or other positive pressure mode when exposures are 100-1000 times the exposure control guideline.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye protection	Safety glasses with side-shields are recommended (EN 166). Face shields or chemical safety goggles (EN 166) may be required if splash potential exists or if corrosive materials are present. Note: Choice of eye protection may be influenced by the type of respirator which is selected.
Hand protection	Impervious nitrile, rubber and latex gloves are recommended (EN 420, EN 374). If material is handled in solution, the solvent should also be considered when selecting protective clothing material. Please note that employees who are allergic to natural rubber latex should use nitrile gloves.
Skin and body protection	Wear a laboratory coat (EN 340) when handling quantities up to 1 kilogram. For quantities over 1 kilogram, wear laboratory coat(EN 340)or coverall of low permeability (EN 1149-1). For manufacturing operations, wear coverall of low permeability (EN 465/1149-1). For manufacturing operations, wear coverall of low permeability.
Hygiene	Wash hands and face before breaks and immediately after handling the product.
Environmental exposure controls	Prevent release to drains and waterways.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance

Physical State	liquid
Color	white to off-white
Form	suspension

Odour

Odour	Not remarkable.
Odor Threshold	Not available

pH	5 - 7
----	-------

Other information

Bulk density	Not available
Evaporation rate	Not available
Molecular formula	Not applicable
Hydrolysis/Photolysis	Not available
Hygroscopicity	Not available
Molecular Weight	Not applicable
Log Octanol/Water Partition Coefficient [log Kow]	Not available
Surface Tension	Not available
pKa	Not available
Particle Size	Not available
Solubility, Water	soluble
Specific Gravity/ Relative density	1.015
Viscosity, dynamic	similar to water
Viscosity, kinematic	Not available
% Volatile	Not available

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9. PHYSICAL AND CHEMICAL PROPERTIES

Thermal/Stability properties

Autoignition temperature	Not available
Boiling Point	100 °C
Thermal decomposition	Not available
Explosive Limits, LEL	Not available
Explosive limits, UEL	Not available
Explosiveness	Not available
Flammability	Not available
Flash point	Not available
Melting Point	0 °C
Oxidizing Potential	Not available

Vapor Properties

Vapor Density	(Air =1): If adequate temperatures caused material to volatize, its vapor density would be much greater than 1. (Heavier than air)
Vapor Pressure	Not available
Saturated Vapor Concentration	Not available

10. STABILITY AND REACTIVITY

Stability

Chemical Stability	Stable under normal conditions.
Conditions to avoid	Not available
Materials to avoid	Not available
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions.: carbon oxides (COx), hydrogen halides
Hazardous reactions	Not available

Sensitivity to static discharge/Dust exp.

Summary Statements	not applicable
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11. TOXICOLOGICAL INFORMATION

Routes of Entry	Ingestion, inhalation, Eye contact, Skin contact
Eye Irritation	<u>Triamcinolone Acetonide</u> Mildly and/or transiently irritating to eyes <u>Benzyl Alcohol</u> Irritating to eyes.
Skin Irritation	<u>Triamcinolone Acetonide</u>

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11. TOXICOLOGICAL INFORMATION

	<p>Repeated exposure may cause skin dryness or cracking. skin thinning</p> <p><u>Benzyl Alcohol</u> Mildly irritating to skin</p>
Respiratory Irritation	<p><u>Triamcinolone Acetonide</u> May cause irritation of respiratory tract.</p> <p><u>Benzyl Alcohol</u> Irritating to respiratory tract.</p>
Sensitization	<p><u>Triamcinolone Acetonide</u> Not a dermal sensitizer Allergic contact dermatitis is quite rare but has been reported.</p> <p><u>Benzyl Alcohol</u> Several studies were conducted. The results were negative and positive. Only rare mild cutaneous sensitization reactions have been observed in adults.</p>
Acute Toxicity Study	<p>Acute Oral <u>Triamcinolone Acetonide</u> LD50 (mouse): 5,000 mg/kg</p> <p><u>Benzyl Alcohol</u> LD50 (rat): 1,230 mg/kg LD50 (mouse): 1,360 mg/kg LD50 (rabbit): 1,040 mg/kg LD50 (guinea pig): 2,500 mg/kg</p> <p>Acute Dermal <u>Benzyl Alcohol</u> LD50 (rabbit): 2,000 mg/kg</p> <p>Acute inhalation toxicity <u>Benzyl Alcohol</u> LC50 (rat): 8.8 mg/l/4 H</p> <p>Acute toxicity (other routes of administration) <u>Triamcinolone Acetonide</u> LD50 (rat, subcutaneous): 13.1 mg/kg LD50 (mouse, subcutaneous): 132 mg/kg LD50 (mouse, intraperitoneal): 105 mg/kg</p>
Repeated Dose Toxicity	<p><u>Benzyl Alcohol</u> 16 D - 24 months oral (daily) rat, mouse study (males and females): LOAEL = 200 mg/kg; High dose effects include: irregular respiration, lethargy, abnormal gait, decreased weight gain, mortality. High dose microscopic effects include: kidney, brain, muscle, thymus.</p>

11. TOXICOLOGICAL INFORMATION

Genetic Toxicity	<p><u>Triamcinolone Acetonide</u> In vitro Ames reverse-mutation assay -- negative Forward gene mutation assay -- negative Mutagenicity Assessment Several studies were conducted. The weight of evidence demonstrates that this material is not genotoxic.</p> <p><u>Benzyl Alcohol</u> Mutagenicity Assessment The weight of evidence demonstrates that this material is not genotoxic.</p>
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Carcinogenicity	<p><u>Triamcinolone Acetonide</u> 2 years oral (daily) rat study : Tumor NOAEL = 0.001 mg/kg No treatment-related tumors were observed. 2 years oral (daily) mouse study : Tumor NOAEL = 0.003 mg/kg No treatment-related tumors were observed. 2 years drinking water (daily) rat study : Tumor LOAEL = 0.0048 mg/kg [tumor organs: liver] Carcinogenicity Assessment Not classifiable as to its carcinogenicity to humans.</p> <p><u>Benzyl Alcohol</u> 2 Years oral (5/week) rat study : Tumor NOAEL = 400 mg/kg (males and females). No treatment-related tumors were observed. 2 Years oral (5/week) mouse study : Tumor NOAEL = 200 mg/kg (males and females). No treatment-related tumors were observed. Carcinogenicity Assessment This material did not show carcinogenic potential in animal studies.</p>
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Carcinogenicity	ACGIH	IARC	NTP
Triamcinolone Acetonide	--	--	--
Benzyl Alcohol	--	--	--

Reproductive Toxicity	<p><u>Triamcinolone Acetonide</u> Assessment Reproductive Toxicity Several studies were conducted. May impair fertility. Maternal effects include: menstrual irregularities . Paternal effects include: sperm abnormalities See "Human Experience". See also "Developmental Toxicity" for information on reproductive effects.</p>
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Developmental Toxicity	<p><u>Triamcinolone Acetonide</u> Developmental Toxicity Assessment Several developmental studies were conducted. Birth defects were observed in animal studies. Compound may be toxic during early embryonic development. Teratogen This compound and/or its metabolites may be excreted into the milk. May cause harm to breastfed babies.</p>
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11. TOXICOLOGICAL INFORMATION

Benzyl Alcohol
Developmental Toxicity Assessment
Limited data are available.

Human experience

Experiences with Human Exposure

Triamcinolone Acetonide

General effects therapeutic use low exposure - acute effects include: muscle weakness, muscle pain, bone fractures, infection, oedema, headache, difficulty sleeping, vertigo, restlessness, euphoria, mental disturbance, depression, anxiety, mood changes, seizure disorders, nosebleeds, cough, fever, nausea, anaphylaxis, vomiting, anorexia, gastrointestinal disturbance, sore throat, dry mouth, taste disturbance, speech difficulty, congestion, redness and swelling of eyes, vision changes, facial swelling, allergic reactions, skin thinning, acne, redness and swelling of skin, hives, bruising, superficial burning sensation, tingling, increase in blood pressure, Cushing's syndrome, electrolyte disturbance, hyperglycemia, adrenocortical insufficiency, withdrawal symptoms, osteoporosis, bone effects, menstrual irregularities, impaired spermatogenesis, cataracts, glaucoma, nose changes, otitis, peptic ulcer, psychiatric disorders, pancreatitis, changes in white blood cell parameters, alopecia, asthma, growth retardation, skin effects, injection site reactions, cardiac disorders, death.

Benzyl Alcohol

See also symptoms below.

Target Organs

Triamcinolone Acetonide

adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin, female reproductive organs, male reproductive organs

Benzyl Alcohol

central nervous system

Symptoms

Triamcinolone Acetonide

See "Human Experience".

Benzyl Alcohol

nausea, vomiting, diarrhoea, CNS depression, dizziness, headache, vision changes, rash, redness and swelling of skin, vertigo, delirium

Pharmacokinetics/
Toxicokinetics

Triamcinolone Acetonide

Absorption: Not available

Distribution: Not available

Metabolism: Not available

Elimination: Half-life = 2 - 3 Hour(s) (Human).

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11. TOXICOLOGICAL INFORMATION

Other Toxicity Information Not available

Other Information: This SDS may contain toxicological and/or pharmacological information derived from either the specified product or from compounds in the same pharmacological class.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Acute Toxicity to Fish

Benzyl Alcohol

LC50 (Pimephales promelas, 96 H): 460 mg/l.

LC50 (Lepomis macrochirus, 96 H): 10 mg/l.

Acute Toxicity to Aquatic Invertebrates

Triamcinolone Acetonide

EC50 (Daphnia magna (Water flea), 48 H): > 100 mg/l.

Benzyl Alcohol

EC50 (water flea, 48 H): 23 mg/l.

Toxicity to aquatic plants

Benzyl Alcohol

EC50 (Anabaena variabilis, 3 H): 35 mg/l

Toxicity to microorganisms

Benzyl Alcohol

EC50 (Photobacterium phosphoreum, 30 Minute): 71.4 mg/l

Mobility Not available

Persistence and degradability

Biodegradation

Triamcinolone Acetonide

Ultimate aerobic biodegradation (28 D): 3 %; Not Readily Biodegradable - unlikely to undergo rapid biodegradation in the environment

Benzyl Alcohol

Ready biodegradation (30 D): > 90 %; Readily biodegradable - rapidly biodegrades in the environment

Summary Statements

Chemical Fate

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Not readily biodegradable.

PBT and vPvB assessment Not available

13. DISPOSAL CONSIDERATIONS

Advice On Disposal And Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. This information presented only applies to the material as supplied.

Other information Disposal by incineration is recommended.

14. TRANSPORT INFORMATION

This material is not a dangerous good for the purpose of transportation in all modes.

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15. REGULATORY INFORMATION

United States of America

313 Toxic Release Inventory No components listed on the SARA 313 inventory.

TSCA Inventory Not listed. Food, drug and cosmetic products are exempt from TSCA.

EU Directive 1999/45/EC

BULK MATERIAL

Symbol(s) T: Toxic

R-phrases) R60: May impair fertility.
R61: May cause harm to the unborn child.
R64: May cause harm to breastfed babies.

S-phrases) S23: Do not breathe gas/fumes/vapour/spray.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S38: In case of insufficient ventilation, wear suitable respiratory equipment.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S53: Avoid exposure - obtain special instructions before use.

DRUG PRODUCT

Classification Medicinal products are exempt from classification and labeling requirements under EU Preparations Directive 1999/45/EC.

Regulatory Authorizations and Restrictions: Not available

16. OTHER INFORMATION

Text of Symbol(s), R-phrases(s) and H-code(s) mentioned in Section 3

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child
H360F	May damage fertility
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.
R20/22	Harmful by inhalation and if swallowed.
R60	May impair fertility.
R61	May cause harm to the unborn child.
R64	May cause harm to breastfed babies.
R66	Repeated exposure may cause skin dryness or cracking.
T	Toxic
Xn	Harmful

Recommended Restrictions for Use:

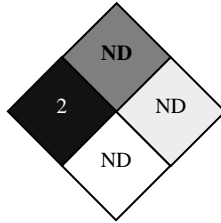
Not available

SDS preparation information

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Prepared by	Research and Development Environment, Health and Safety 1-732-227-7380		
Prepared on	24.02.2015 DD/MM/YYYY		
This Safety Data Sheet was reformatted in accordance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) for the United States of America (USA) (CFR 1910.1200), European Union (EU) (EC 1272/2008) and United Nations (UN).			
Other information			
HMIS	Health		2*
	Flammability		Not Determined (ND)
	Reactivity		Not Determined (ND)
	Personal protective equipment		See Section 8.
NFPA	Health	2	
	Fire	ND	
	Reactivity	ND	
	Special	ND	

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*Country- Specific Emergency
Phone Numbers*

CHEMTREC In-Country Dial Numbers	Local # Provided in Country	Toll Free In Country*	Greeting Language
CHEMTREC South Africa*		0-800-983-611	English
CHEMTREC Argentina (Buenos Aires)	+(54)-1159839431		Latin American Spanish
CHEMTREC Brazil (Rio De Janeiro)	+(55)-2139581449		Portuguese
CHEMTREC Chile (Santiago)	+(56)-25814934		Latin American Spanish
CHEMTREC Colombia *		01800-710-2151	Latin American Spanish
CHEMTREC Mexico*		01-800-681-9531	Latin American Spanish
CHEMTREC Peru (Lima)	+(51)-17071295		Latin American Spanish
CHEMTREC China*	4001-204937		Mandarin
CHEMTREC Hong Kong (Hong Kong)*		800-968-793	Cantonese
CHEMTREC India *		000-800-100-7141	Hindi
CHEMTREC Indonesia*		001-803-017-9114	Indonesian
CHEMTREC Japan (Tokyo)	+(81)-345209637		Japanese
CHEMTREC Malaysia *		1-800-815-308	Malay
CHEMTREC Philippines *		1-800-1-116-1020	Tagalog
CHEMTREC Singapore*		800-101-2201	Mandarin
CHEMTREC Singapore	+(65)-31581349		Mandarin
CHEMTREC South Korea*		00-308-13-2549	Korean
CHEMTREC Taiwan *		00801-14-8954	Mandarin
CHEMTREC Thailand *		001-800-13-203-9987	Thai
CHEMTREC Vietnam (Ho Chi Minh City)	+(84)-838012435		Vietnamese
CHEMTREC Australia (Sydney)	+(61)-290372594		English
CHEMTREC Belgium (Brussels)	+(32)-28083237		French and Flemish
CHEMTREC Czech Republic (Prague)	+(420)-228880039		Czech
CHEMTREC France	+(33)-975181407		French
CHEMTREC Germany *		0800-181-7059	German
CHEMTREC Hungary (Budapest)	+(36)-18088425		Hungarian
CHEMTREC Italy *		800-789-767	Italian
CHEMTREC Italy (Milan)	+(39)-0245557031		Italian
CHEMTREC Netherlands	+(31)-858880596		Dutch
CHEMTREC Poland (Warsaw)	+(48)-223988029		Polish
CHEMTREC Spain *		900-868538	European Spanish
CHEMTREC Sweden (Stockholm)	+(46)-852603403		Swedish
CHEMTREC Switzerland (Zurich)	+(41)-435016715		German
CHEMTREC UK (London)	+(44)-870-8200418		English
CHEMTREC Bahrain (Bahrain)	+(973)-16159372		Arabic
CHEMTREC Israel (Tel Aviv)	+(972)-37630639		Hebrew

*Phone numbers for countries marked with an asterisk must be dialed within the country

The information contained in this SDS is believed to be accurate and represents the best information reasonably available at the time of preparation. However, we make no warranty, express or implied, with respect to such information, and we assume no liability from its use.



SAFETY DATA SHEET

Revision date: 26-Jul-2017

Version: 1.1

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Lidocaine Hydrochloride Injection (Hospira, Inc.)

Trade Name: Lignocaine Injection
Synonyms: Lidocaine
Chemical Family: Not determined

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product anesthetic agent

Details of the Supplier of the Safety Data Sheet

Hospira, A Pfizer Company
 275 North Field Drive
 Lake Forest, Illinois 60045
 1-800-879-3477

Hospira UK Limited

Horizon

Honey Lane

Hurley

Maidenhead, SL6 6RJ

United Kingdom

Emergency telephone number:

CHEMTREC (24 hours): 1-800-424-9300

Contact E-Mail: pfizer-MSDS@pfizer.com

Emergency telephone number:

International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification Not classified as hazardous

Label Elements

Signal Word: Not Classified

Hazard Statements: Not classified in accordance with international standards for workplace safety.

Other Hazards

An Occupational Exposure Value has been established for one or more of the ingredients (see Section 8).

Note:

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous

SAFETY DATA SHEET

Material Name: Lidocaine Hydrochloride Injection (Hospira, Inc.)

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Revision date: 26-Jul-2017

Version: 1.1

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Lidocaine Hydrochloride	73-78-9	200-803-8	Acute Tox.4 (H302)	1-2
Sodium chloride	7647-14-5	231-598-3	Not Listed	*
SODIUM HYDROXIDE	1310-73-2	215-185-5	Skin Corr. 1A (H314)	**
HYDROCHLORIC ACID	7647-01-0	231-595-7	Skin Corr.1B (H314) STOT SE 3 (H335)	**

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Water for injection	7732-18-5	231-791-2	Not Listed	*

Additional Information:

* Proprietary

** to adjust pH

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

For the full text of the CLP/GHS abbreviations mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact:

Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

Skin Contact:

Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

Ingestion:

Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation:

Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure:

For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

Medical Conditions

None known

Aggravated by Exposure:

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician:

None

5. FIRE FIGHTING MEASURES

Extinguishing Media:

Extinguish fires with CO2, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products:

Formation of toxic gases is possible during heating or fire.

Fire / Explosion Hazards:

Fine particles (such as dust and mists) may fuel fires/explosions.

SAFETY DATA SHEET

Material Name: Lidocaine Hydrochloride Injection (Hospira, Inc.)

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Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

Measures for Cleaning / Collecting: Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly.

Additional Consideration for Large Spills: Contain the source of the spill or leak if it is safe to do so. Collect spill with a non-combustible absorbent material and transfer to labeled container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store as directed by product packaging.

Specific end use(s): Pharmaceutical drug product

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

Sodium chloride

Latvia OEL - TWA 5 mg/m³

Lithuania OEL - TWA 5 mg/m³

SODIUM HYDROXIDE

ACGIH Ceiling Threshold Limit: 2 mg/m³

Australia PEAK 2 mg/m³

Austria OEL - MAKs 2 mg/m³

Bulgaria OEL - TWA 2.0 mg/m³

Czech Republic OEL - TWA 1 mg/m³

Estonia OEL - TWA 1 mg/m³

France OEL - TWA 2 mg/m³

Greece OEL - TWA 2 mg/m³

Hungary OEL - TWA 2 mg/m³

Japan - OELs - Ceilings 2 mg/m³

Latvia OEL - TWA 0.5 mg/m³

OSHA - Final PELs - TWAs: 2 mg/m³

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Poland OEL - TWA	0.5 mg/m ³
Slovakia OEL - TWA	2 mg/m ³
Slovenia OEL - TWA	2 mg/m ³
Sweden OEL - TWAs	1 mg/m ³
Switzerland OEL - TWAs	2 mg/m ³

HYDROCHLORIC ACID

ACGIH Ceiling Threshold Limit:	2 ppm
Australia PEAK	5 ppm
	7.5 mg/m ³
Austria OEL - MAKs	5 ppm
	8 mg/m ³
Belgium OEL - TWA	5 ppm
	8 mg/m ³
Bulgaria OEL - TWA	5 ppm
	8.0 mg/m ³
Cyprus OEL - TWA	5 ppm
	8 mg/m ³
Czech Republic OEL - TWA	8 mg/m ³
Estonia OEL - TWA	5 ppm
	8 mg/m ³
Germany - TRGS 900 - TWAs	2 ppm
	3 mg/m ³
Germany (DFG) - MAK	2 ppm
	3.0 mg/m ³
Greece OEL - TWA	5 ppm
	7 mg/m ³
Hungary OEL - TWA	8 mg/m ³
Ireland OEL - TWAs	5 ppm
	8 mg/m ³
Italy OEL - TWA	5 ppm
	8 mg/m ³
Japan - OELs - Ceilings	2 ppm
	3.0 mg/m ³
Latvia OEL - TWA	5 ppm
	8 mg/m ³
Lithuania OEL - TWA	5 ppm
	8 mg/m ³
Luxembourg OEL - TWA	5 ppm
	8 mg/m ³
Malta OEL - TWA	5 ppm
	8 mg/m ³
Netherlands OEL - TWA	8 mg/m ³
Poland OEL - TWA	5 mg/m ³
Portugal OEL - TWA	5 ppm
	8 mg/m ³
Romania OEL - TWA	5 ppm
	8 mg/m ³
Slovakia OEL - TWA	5 ppm
	8.0 mg/m ³
Slovenia OEL - TWA	5 ppm
	8 mg/m ³

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Spain OEL - TWA	5 ppm 7.6 mg/m ³
Switzerland OEL - TWAs	2 ppm 3.0 mg/m ³
Vietnam OEL - TWAs	5 mg/m ³

Lidocaine Hydrochloride

Pfizer Occupational Exposure Band (OEB): OEB 2 (control exposure to the range of 100ug/m³ to < 1000ug/m³)

Sodium chloride

Pfizer Occupational Exposure Band (OEB): OEB 1 (control exposure to the range of 1000ug/m³ to 3000ug/m³)

Exposure Controls

Engineering Controls:	Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.
Personal Protective Equipment:	Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE). Contact your safety and health professional or safety equipment supplier for assistance in selecting the correct protective clothing/equipment based on an assessment of the workplace conditions, other chemicals used or present in the workplace and specific operational processes.
Hands:	Impervious gloves (e.g. Nitrile, etc.) are recommended if skin contact with drug product is possible and for bulk processing operations. (Protective gloves must meet the standards in accordance with EN374, ASTM F1001 or international equivalent.)
Eyes:	Wear safety glasses or goggles if eye contact is possible. (Eye protection must meet the standards in accordance with EN166, ANSI Z87.1 or international equivalent.)
Skin:	Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations. (Protective clothing must meet the standards in accordance with EN13982, ANSI 103 or international equivalent.)
Respiratory protection:	Under normal conditions of use, if the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL (e.g. particulate respirator with a half mask, P3 filter). (Respirators must meet the standards in accordance with EN140, EN143, ASTM F2704-10 or international equivalent.)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solution	Color:	Clear, colorless
Odor:	No data available.	Odor Threshold:	No data available.
Molecular Formula:	Mixture	Molecular Weight:	Mixture
Solvent Solubility:	No data available		
Water Solubility:	No data available		
pH:	5-7		
Melting/Freezing Point (°C):	No data available		
Boiling Point (°C):	No data available.		
Partition Coefficient: (Method, pH, Endpoint, Value)			
Lidocaine Hydrochloride			
No data available			

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9. PHYSICAL AND CHEMICAL PROPERTIES

Water for injection

No data available

Sodium chloride

No data available

HYDROCHLORIC ACID

No data available

SODIUM HYDROXIDE

No data available

Decomposition Temperature (°C): No data available.

Evaporation Rate (Gram/s): No data available

Vapor Pressure (kPa): No data available

Vapor Density (g/ml): No data available

Relative Density: No data available

Viscosity: No data available

Flammability:

Autoignition Temperature (Solid) (°C): No data available

Flammability (Solids): No data available

Flash Point (Liquid) (°C): No data available

Upper Explosive Limits (Liquid) (% by Vol.): No data available

Lower Explosive Limits (Liquid) (% by Vol.): No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use.

Possibility of Hazardous Reactions

Oxidizing Properties: No data available

Conditions to Avoid: Fine particles (such as dust and mists) may fuel fires/explosions.

Incompatible Materials: As a precautionary measure, keep away from strong oxidizers

Hazardous Decomposition Products: No data available

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: There are no data for this formulation. The information included in this section describes the potential hazards of the individual ingredients.

Short Term: Harmful if swallowed. May cause mild eye irritation. May cause slight skin irritation. (based on components) Drugs of this class have been associated with rare, but potentially serious cardiac events. These events have not been observed from occupational exposures, however, those with preexisting cardiovascular illnesses may be at increased risk from exposure.

Known Clinical Effects: Adverse effects associated with therapeutic use include dizziness, nervousness, agitation, drowsiness, apprehension, euphoria, blurred/double vision, slurred speech, tremors, convulsions, and seizure. Respiratory depression and arrest may follow. Other, more serious effects seen with IV use of this drug, particularly when it is administered rapidly, are cardiovascular collapse, central nervous system depression, and/or hypotension.

Acute Toxicity: (Species, Route, End Point, Dose)

Lidocaine Hydrochloride

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Material Name: Lidocaine Hydrochloride Injection (Hospira, Inc.)

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11. TOXICOLOGICAL INFORMATION

Rat Oral LD50 317 mg/kg
 Rat Para-periosteal LD50 25mg/kg
 Rat Intraperitoneal LD50 133mg/kg
 Mouse Oral LD50 292mg/kg
 Mouse Intravenous LD50 19.5mg/kg

Sodium chloride

Rat Oral LD50 3000 mg/kg
 Mouse Oral LD50 4000 mg/kg

HYDROCHLORIC ACID

Rat Oral LD 50 238-277 mg/kg

Irritation / Sensitization: (Study Type, Species, Severity)

Lidocaine Hydrochloride

Eye Irritation Rabbit Mild
 Skin Irritation Rabbit Mild

Sodium chloride

Eye Irritation Rabbit Moderate
 Skin Irritation Rabbit Mild

Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

Lidocaine Hydrochloride

Embryo / Fetal Development	Rat	Subcutaneous	30 mg/kg	NOAEL	Not teratogenic
Embryo / Fetal Development	Rat	Intraperitoneal	56 mg/kg	NOAEL	Not Teratogenic
Embryo / Fetal Development	Rat	Intraperitoneal	72 mg/kg/day	NOAEL	Not Teratogenic
Embryo / Fetal Development	Rat	Intravenous	500 mg/kg/day	LOAEL	Fetotoxicity
Embryo / Fetal Development	Rat	Intraperitoneal	6 mg/kg	LOAEL	Developmental toxicity

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

Lidocaine Hydrochloride

Bacterial Mutagenicity (Ames) *Salmonella*, *E. coli* Negative
In Vitro Chromosome Aberration Human Lymphocytes Negative
In Vivo Micronucleus Mouse Negative

HYDROCHLORIC ACID

Bacterial Mutagenicity (Ames) *Salmonella* Negative
In Vivo Micronucleus Rat Negative

Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

HYDROCHLORIC ACID

IARC: Group 3 (Not Classifiable)

SAFETY DATA SHEET

Material Name: Lidocaine Hydrochloride Injection (Hospira, Inc.)

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12. ECOLOGICAL INFORMATION

Environmental Overview:	Environmental properties have not been thoroughly investigated. Releases to the environment should be avoided.
Toxicity:	No data available
Persistence and Degradability:	No data available
Bio-accumulative Potential:	No data available
Mobility in Soil:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:	Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.
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14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Lidocaine Hydrochloride	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-803-8

Sodium chloride

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15. REGULATORY INFORMATION

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-598-3

Water for injection

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the obligations of Register:	Present
EU EINECS/ELINCS List	231-791-2

SODIUM HYDROXIDE

CERCLA/SARA 313 Emission reporting	Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	1000 lb 454 kg
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 5 Schedule 6
EU EINECS/ELINCS List	215-185-5

HYDROCHLORIC ACID

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	5000 lb 2270 kg
CERCLA/SARA - Section 302 Extremely Hazardous TPQs	500 lb
CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	5000 lb
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 5 Schedule 6
EU EINECS/ELINCS List	231-595-7

16. OTHER INFORMATION

Text of CLP/GHS Classification abbreviations mentioned in Section 3

Acute toxicity, oral-Cat.4; H302 - Harmful if swallowed

Skin corrosion/irritation-Cat.1A; H314 - Causes severe skin burns and eye damage

Specific target organ toxicity, single exposure; Respiratory tract irritation-Cat.3; H335 - May cause respiratory irritation

Data Sources:

Publicly available toxicity information. Pfizer proprietary drug development information. Safety data sheets for individual ingredients.

SAFETY DATA SHEET

Material Name: Lidocaine Hydrochloride Injection (Hospira, Inc.)

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Reasons for Revision:

Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking.
Updated Section 16 - Other Information.

Revision date:

26-Jul-2017

Prepared by:

Product Stewardship Hazard Communication
Pfizer Global Environment, Health, and Safety Operations

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

SAFETY DATA SHEET

Lysol® Brand III Disinfectant Spray, All Scents



HEALTH • HYGIENE • HOME

1. Product and company identification

Product name : Lysol® Brand III Disinfectant Spray, All Scents

Distributed by : Reckitt Benckiser LLC.
Morris Corporate Center IV
399 Interpace Parkway (P.O. Box 225)
Parsippany, New Jersey 07054-0225
+1 973 404 2600

Emergency telephone number (Medical) : 1-800-338-6167

Emergency telephone number (Transport) : 1-800-424-9300 (U.S. & Canada) CHEMTREC
Outside U.S. and Canada (North America), call Chemtrec:703-527-3887

Website: : <http://www.rbnainfo.com>

Product use : Disinfectant.

This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure, in accordance with the requirements of USDOL Occupational Safety and Health Administration.

This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations, and shown in Section 15 of this SDS.

SDS # : D0224478 v8.0

Formulation #: : 1338-022 (0175933 v1.0) Original
1338-022 (8083521 v1.0) Original
1338-019 (0175919 v1.0) Country
1338-019 (8080039 v1.0) Campestre
1338-016 (0175935 v1.0) Summer Breeze
1338-018 (0175934 v1.0) Green Apple / Green Apple Breeze
1338-017 (0175927 v1.0) Kitchen (Citrus)
1338-021 (0175938 v1.0) Crisp Berry
1338-020 (0175932 v1.0) Garden Mist
1338-020 (8089468 v1.0) Bebe
1338-015 (0175918 v1.0) Spring Waterfall
1338-015 (0258756 v1.0) Blr Swf Ext Prd
1178-172 (0175917 v1.0) Crisp Linen
1178-172 (8089462 v1.0) Frescura
1178-172 (0242193 v1.0) Blr C/L Ext Prd
1338-026 (0175929 v1.0) Early Morning Breeze
1314-032 (0175926 v1.0) Citrus Meadows
1544-074 (0175943 v2.0) Vanilla & Blossoms
1314-038 (0175920 v1.0) Jasmine & Rain / Lavender
e0002-161 (8159483 v1.0) Pomegranate Crush
1784-045A (0346500 v1.0) Crisp Mountain Air
1325-133 (0222651 v1.0) Amphyl
1338-023 (0175940 v1.0) Fresh / Oxygen

EPA ID No. : 777-99

Code # : D0224478_US GHS **SDS #** : D0224478 v8.0 **Date of issue** : 26/06/2015.

1/14

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

D0224478 v8.0

1. Product and company identification

UPC Code / Sizes : Sizes: 6 oz., 12 oz., 12.5 oz. and 19 oz. (Tin plate steel cans).

2. Hazards identification

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 2

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Flammable aerosol.
Pressurized container: may burst if heated.

Precautionary statements

General : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Pressurized container: may burst if heated. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Wash hands thoroughly after handling.

Response : Not applicable.

Storage : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal : Not applicable.

Supplemental label elements : None known.

Hazards not otherwise classified : None known.

3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Ethyl alcohol	30 - 60	64-17-5
butane	1-5	106-97-8
propane	<2.5	74-98-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

D0224478 v8.0

4. First aid measures

Description of necessary first aid measures

- | | |
|---------------------|---|
| Eye contact | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs. |
| Inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

- | | |
|---------------------|---|
| Eye contact | : May cause eye irritation upon direct contact with eyes. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : No known significant effects or critical hazards. |
| Ingestion | : No known significant effects or critical hazards. |

Over-exposure signs/symptoms

- | | |
|---------------------|---|
| Eye contact | : Adverse symptoms may include the following:
irritation
redness |
| Inhalation | : Adverse symptoms may include the following:
respiratory tract irritation
coughing |
| Skin contact | : No specific data. |
| Ingestion | : No specific data. |

Indication of immediate medical attention and special treatment needed, if necessary

- | | |
|-----------------------------------|--|
| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : No specific treatment. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

See toxicological information (Section 11)

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

D0224478 v8.0

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

D0224478 v8.0

6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Control

Occupational exposure limits

Ingredient name	Exposure limits
Ethyl alcohol	ACGIH TLV (United States, 6/2013). STEL: 1000 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m ³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 1000 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m ³ 8 hours.
butane	OSHA PEL 1989 (United States, 3/1989). TWA: 800 ppm 8 hours. TWA: 1900 mg/m ³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 6/2013). STEL: 1000 ppm 15 minutes.
propane	OSHA PEL 1989 (United States, 3/1989).

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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8. Exposure controls/personal protection

TWA: 1000 ppm 8 hours.
TWA: 1800 mg/m³ 8 hours.
NIOSH REL (United States, 10/2013).
TWA: 1000 ppm 10 hours.
TWA: 1800 mg/m³ 10 hours.
OSHA PEL (United States, 2/2013).
TWA: 1000 ppm 8 hours.
TWA: 1800 mg/m³ 8 hours.

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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9. Physical and chemical properties

Appearance

Physical state : Liquid. [Aerosol.]

Color : Clear.

Odor : Characteristic.

Odor threshold : Not available.

pH : 10.5 to 11.8 [Conc. (% w/w): 100%]

Melting point : Not available.

Boiling point : Not available.

Flash point : Closed cup: 25.6°C (78.1°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 0.8667 to 0.8967 g/cm³ [20 to 25°C]

Solubility : Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 17.99 kJ/g

Ignition distance : <45.72 cm

10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethyl alcohol	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Oral	Rat	7 g/kg	-
*Lysol® Brand III Disinfectant Spray, All Scents (Aerosol)	LC50 Inhalation Vapor	Rat	>2.12 mg/l	4 hours Maximum attainable concentration

Conclusion/Summary : Not classified Harmful. * Information is based on toxicity test result of the concentrate of a similar product.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethyl alcohol	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
*Lysol® Brand III Disinfectant Spray, All Scents (Aerosol)	Eyes - Cornea opacity	Rabbit	< 1	72 hours	4 days
	Skin - Primary dermal irritation index (PDII)	Rabbit	0.3	4 hours	72 hours

Conclusion/Summary

Skin : Slightly irritating to the skin. *Information is based on toxicity test result of the concentrate of a similar product.

Eyes : Moderately irritating to eyes. *Information is based on toxicity test result of the concentrate of a similar product.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Ethyl alcohol	-	1	-

Reproductive toxicity

Not available.

Teratogenicity

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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11. Toxicological information

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : May cause eye irritation upon direct contact with eyes.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 irritation
 redness
Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Not available.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Ethyl alcohol	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Ethyl alcohol	-0.35	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.






13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1950	Aerosols, flammable	2.1	-		Limited quantity
TDG Classification	UN1950	Aerosols, flammable	2.1	-		Limited quantity
Mexico Classification	UN1950	Aerosols, flammable	2.1	-		Limited quantity
IMDG Class	UN1950	Aerosols, flammable	2.1	-		Limited quantity
IATA-DGR Class	UN1950	Aerosols, flammable	2.1	-		See DG List

PG* : Packing group

15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: 2-methylpropan-2-ol
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 311: ammonia
Clean Air Act (CAA) 112 regulated flammable substances: butane; propane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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15. Regulatory information

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Ethyl alcohol	30 - 60	Yes.	No.	No.	Yes.	No.

State regulations

- Massachusetts** : The following components are listed: ETHYL ALCOHOL; BUTANE; PROPANE
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: ETHYL ALCOHOL; ALCOHOL; BUTANE; PROPANE
- Pennsylvania** : The following components are listed: DENATURED ALCOHOL; BUTANE; PROPANE

Label elements

- Signal word:** : CAUTION
- Hazard statements** : Causes moderate eye irritation
- Precautionary measures** : Do not get in eyes, on skin, or on clothing. Wash with soap and water.
Keep out of the reach of children.
CONTENTS UNDER PRESSURE. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120 °F. Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

Hazard statements



Flammable

16. Other information

Hazardous Material Information System (U.S.A.) :

Health	1
Flammability	3
Physical hazards	0
Personal protection	B

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :

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16. Other information



NFPA (30B) aerosol Flammability Level 1

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

Date of issue : 26/06/2015.

Date of previous issue : 09/04/2015.

Version : 8

Prepared by : Reckitt Benckiser LLC.
 Product Safety Department
 1 Philips Parkway
 Montvale, New Jersey 07646-1810 USA.
 FAX: 201-476-7770

Revision comments : Revision as per US GHS. Correction to NFPA 30B level.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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16. Other information



RB is a member of the CSPA Product Care Product Stewardship Program.



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This safety data sheet complies with the requirements of 29CFR1910.1200.

1.0 IDENTIFICATION

PRODUCT NAME: McKesson Alcohol Prep Pads
MFR #: 58-204, 58-404, 16-527, 16-528

DISTRIBUTED BY: McKesson Medical-Surgical Inc.
9954 Mayland Drive, Suite 4000
Richmond, Virginia 23233

INFORMATION LINE: 1-800-777-4908
Monday – Friday 8:00 a.m. – 6:00 p.m. EST

EMERGENCY PHONE: 1-800-451-8346 (3E Company) Day or Night

PRODUCT DESCRIPTION: McKesson Alcohol Prep Pads

2.0 HAZARDS IDENTIFICATION

CLASSIFICATION

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Physical Hazards

Health Hazards

Environmental Hazards

OSHA defined hazards

Flammable Solids

Serious eye damage/eye irritation Category 2A

Not determined

None additional

Label Elements

Pictograms



Signal Word

Danger



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Hazard Statements

Flammable solid.

Causes serious eye irritation.

Precautionary Statements – Prevention

Keep away from heat/spark/open flames/hot surfaces.

No smoking.

Use only in a well ventilated area.

Precautionary Statements – Response

If case of fire: use appropriate media to extinguish.

If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Immediately call a poison control center.

If inhaled: remove victim to fresh air and keep comfortable for breathing.

Precautionary Statement – Disposal

Dispose of waste and residues in accordance with local authority requirements.

Hazards not otherwise classified (HNOC)

Not applicable

Other information

Not know.

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

None

Substance: Mixture

CHEMICAL NAME	CAS NO.	WEIGHT (%)
Isopropyl Alcohol	67-63-0	70
Purified Water	7732-18-5	30

4.0 FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES**General Advice**

Keep victim warm and quiet. Monitor for systemic secondary effects on liver and kidney. Ensure that medical personnel are aware of the material (s) involved and take precautions to protect themselves.



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Eye Contact	Immediately flush with plenty of water. After initial flushing remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention/advice.
Skin Contact	In case of skin irritation, discontinue use of product. Wash off with soap and water. Get medical attention if irritation develops and persists.
Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Ingestion	If swallowed, contact a Poison Control Center immediately. Immediately rinse mouth out with water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Symptoms	May include stinging, tearing, redness, swelling and blurred vision.
-----------------	--

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Provide general supportive measures and treat asymptotically.

5.0 FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA

Use foam, dry chemical or carbon dioxide. Be aware of possibility of re-ignition. Keep containers and surroundings cool with water spray.

Unsuitable extinguishing media:	None
--	------

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

During fire, gases hazardous to health may be formed.

Explosion data	
Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None



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PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

In case of fire or explosion, do not breathe fumes. In the event of fire, use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to the fire. If a leak or spill has not ignited, use water spray to disperse the vapors.

6.0 ACCIDENTAL RELEASE MEASURES
--

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions	Wear appropriate protective equipment and clothing during clean up.
Other Information	Eliminate all sources of ignition.
For Emergency Responders	Use personal protective equipment as required. Vapors can accumulate in low areas. Consider need for evacuation.

ENVIRONMENTAL PRECAUTIONS

Collect spillage. Prevent material from entering water courses.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Methods for Containment	Contain and absorb using earth, sand or inert materials. Transfer into suitable containers for recovery or disposal.
Methods for Cleaning up	N/A

7.0 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Advice on Safe Handling	Do not handle near open flame or heat sources. Do not use with electrocautery procedures. Use according to package label instructions. Discard after single use. Avoid inhaling vapor and contact with eyes.
--------------------------------	--



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CONDITIONS FOR SAFE STORAGE**Storage Conditions**

Keep container closed. Store in a cool, dry, well ventilated place. Keep away from sources of ignition.

Incompatible Materials

N/A

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION
--

CONTROL PARAMETERS**Exposure Guidelines**

OSHA PEL Limits for Air contaminants

Isopropanol 980 mg/m³, 400 ppm

US ACGIH Threshold Limit Values

Isopropanol STEL 400 ppm

Isopropanol TWA 200 ppm

US NIOSH

Isopropanol STEL 1225 mg/m³, 500 ppm

Isopropanol TWA 980 mg/m³, 400 ppm

Biological Limit Values

ACGIH Biological Exposure Indices

Isopropanol

40mg/l, Acetone, Urine

APPROPRIATE ENGINEERING CONTROLS

Ventilation systems. Eyewash stations. Showers.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PPE**Eye/Face Protection**

Wear gear deemed necessary.

Skin and Body Protection

Wear gear as deemed necessary.

Respiratory Protection

Wear positive pressure self contained breathing apparatus (SCBA)

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using, do not smoke. When using do not eat or drink.

9.0 PHYSICAL AND CHEMICAL PROPERTIES



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INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear, Colorless
Form	Pre-moistened towelette
Color	N/A
Odor	Alcohol odor
Odor Threshold	No information available

Property	Values	Remarks
pH (1-3% aqueous solution)	Not applicable	
Melting point/freezing point	- C	
Boiling point/boiling range	Between 82 and 83 C	
Flash point	12 C	
Evaporation rate	2.5	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air <ul style="list-style-type: none"> Upper flammability limit Lower flammability limit 	LEL/UEL 2.0/12.7 vol %	Not Flammable
Vapor pressure	33 mmHg	
Vapor density	Not applicable	
Specific Gravity	0.785	
Water solubility	Not applicable	
Solubility in water	100%	
Partition coefficient	Not applicable	
Autoignition temperature	399 C	
Decomposition temperature	Not applicable	
Kinematic viscosity	Not applicable	
Dynamic viscosity	Not applicable	
Explosive properties	Not applicable	
Oxidizing properties	Not applicable	
Softening point	Not applicable	
Molecular weight	Not applicable	
VOC Content (%)	Not applicable	
Density	Not applicable	
Bulk Density	0.9g/cc	

10.0 STABILITY AND REACTIVITY**CHEMICAL STABILITY**

Stable under normal condition of handling, use and transport.

POSSIBILITY OF HAZARDOUS REACTIONS

None under normal processing.

Hazardous polymerization

Does not occur.



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CONDITIONS TO AVOID

Heat, flames and sparks. Avoid temperatures exceeding flash point.

INCOMPATIBLE MATERIALS

Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

May include but are not limited to oxides of carbon.

11.0 TOXICOLOGICAL INFORMATION**INFORMATION ON LIKELY ROUTES OF EXPOSURE****Product Information**

Available toxicological data for individual ingredients are summarized below.

Inhalation

Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Health injuries are not known or expected under normal use.

Eye Contact

Causes serious eye irritation.

Skin Contact

Not expected to be a primary skin irritant.

Ingestion

Not applicable under normal conditions of use.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LD50
Isopropanol 67-63-0	5045 mg/kg (rat)	Eye 12800 mg/kg (rabbit)	16970 mg/l/4h

INFORMATION ON TOXICOLOGICAL EFFECTS

No information available.

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE**Skin corrosion/irritation**

Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Causes serious irritation to the eye

Respiratory or skin sensitization

Not expected to cause skin sensitization.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

Not expected to have chronic health effects.

Carcinogenicity

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, ACGHI or NTP.

US OSHA Specifically Regulated Substances Not listed

Reproductivity Toxicity

Finished product not expected to have chronic health effects.

STOT- single exposure

Narcotic effects.

STOT – repeated exposure

Not classified.

Chronic Toxicity

No known effect.

Sub-chronic Toxicity

No known effect.

Neurological Effects

Not applicable.



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NUMERICAL MEASURES OF TOXICITY

Not available.

12.0 ECOLOGICAL INFORMATION**ECOTOXICITY**

Chemical Name	Algae/Aquatic Plants	Fish	Crustacea
Isopropanol 67-63-0	IC 50 100mg/L, 72 hours	LC 50 Bluegill > 1400 ml/l, 96 hours	EC 50 13299 mg/L: 72 h Daphnia magna

Persistence and degradability

No data available.

Bioaccumulation

No data available.

Partition coefficient n-octanol/water (log Kow) Isopropanol 0.05

Mobility

No data available.

Other adverse effects

None expected.

13.0 DISPOSAL CONSIDERATIONS**WASTE TREATMENT METHODS****DISPOSAL OF WASTE**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Dispose of contents/containers in accordance with local regulations. This material, as supplied, is not a hazardous waste according to state and federal regulations (40 CFR 61).

Contaminated packaging

Following warning label.

State of California Hazardous Waste Status

Isopropanol (67-63-0) Listed

14.0 TRANSPORT INFORMATION**NOTE: THIS MATERIAL IS NOT SUBJECT TO REGULATION AS A DANGEROUS GOOD.****DOT**

Not regulated

TDG

Not regulated

MEX

Not regulated

ICAO

Not regulated

IATA

Not regulated

IMDG

Not regulated

RID

Not regulated

ADR

Not regulated. European requirement only.



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AND

Not regulated. European requirement only.

15.0 REGULATORY INFORMATION

INTERNATIONAL INVENTORIES

OSHA Specifically regulated substances Not listed

LEGEND

TSCA – United States Toxic Substances Control Act Section 8b Inventory

DSL/NDL – Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS – European Inventory of Existing chemical Substances/European List of Notified Chemical

ENCS – Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS – Phillipines Inventory of Chemicals and Chemical Substances

AICS – Australian Inventory of Chemical Substances

US FEDERAL REGULATION

SARA

Hazard categories	Immediate Hazard – Yes
	Delayed Hazard – No
	Fire Hazard – Yes
	Pressure Hazard – No
	Reactivity Hazard - No

SARA 302 Extremely Hazardous Substances No

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313 (TRI Reporting)

Isopropanol (67-63-0)	40-70% by weight
-----------------------	------------------

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).



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FDA Regulated as a drug.

CERCLA Isopropanol (67-63-0) Listed

US STATE REGULATIONS

CALIFORNIA PROPOSITION 65

This product does not contain any Proposition 65 chemicals.

US RIGHT TO KNOW REGULATIONS

Isopropanol (67-63-0) Listed California (Hazardous Substances (Director's), Illinois, Louisiana, Minnesota, New Jersey, Massachusetts, Pennsylvania, Rhode Island

Country(s) of Origin United States & Puerto Rico

Toxic Substances Control Act (TSCA) Inventory On inventory? Yes

US EPA LABEL INFORMATION

Not applicable.

16.0 OTHER INFORMATION

NFPA

Health Hazards	1
Flammability	3
Reactivity/Instability	0

HMIS

Health Hazards	1
Flammability	3
Physical Hazards	0
Personal Protection	X

Prepared by

Cypress Medical Products, LLC Quality Assurance

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The



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information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

---End of Document---



SAFETY DATA SHEET

SDS Date: 11/16/2016

McKesson Skin Wipe McKesson Individual Packet BZK (Benzalkonium Chloride) Unscented

SECTION 1- PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT CODE	269
DESCRIPTION:	McKesson Benzalkonium Chloride Towelette
Recommended Use:	Disinfecting & Cleaning
DISTRIBUTED BY:	McKesson Medical-Surgical Inc. 9954 Mayland Drive, Suite 4000 Richmond, Virginia 23233 1-800-777-4908 (Monday – Friday 8:00 a.m. – 6:00 p.m. EST)
EMERGENCY PHONE:	1-800-451-8346 (3E Company) Day or Night
SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS	
HAZARDOUS COMPONENTS (Specific Chemical Identity: Common Names)	CAS #
Benzalkonium Chloride	63449-41-2
Sodium Bicarbonate	144-55-8
Water	7732-18-5
SECTION 3 - HAZARDS IDENTIFICATION (Potential Health Effects)	
EYE:	Irritating, and will injure eye tissue if not removed promptly.
SKIN:	<ul style="list-style-type: none"> • Low order of toxicity • Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
INHALATION (BREATHING):	Vapor concentrations above recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects
INGESTION (SWALLOWING):	Small amount of liquid aspirated into the respiratory system during ingestion or from vomiting may cause man pneumonia or pulmonary edema.
SIGNS AND SYMPTOMS:	Take by mouth may cause nausea, vomiting, stomach pains, diarrhea, coma or death
CANCER:	N/A
TARGET ORGANS:	N/A
DEVELOPMENTAL:	N/A
OTHER COMMENTS:	N/A
PRE-EXISTING MEDICAL CONDITIONS:	N/A
SECTION 4 - FIRST AID MEASURES	
Eyes:	Immediately flush eyes with large amount of water for at least 15 minutes. Get prompt medical attention.
SKIN:	<ul style="list-style-type: none"> • Flush with large amounts of water; use available soap. • Remove grossly contaminated clothing, including shoes, and launder before reuse.
INHALATION (BREATHING):	<ul style="list-style-type: none"> • Using proper respiratory protection, immediately remove the affected victim from exposure, Administrator artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.
INGESTION (SWALLOWING):	<ul style="list-style-type: none"> • If swallowed, induce vomiting. Keep at rest. Get prompt medical attention.



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McKesson Skin Wipe McKesson Individual Packet BZK (Benzalkonium Chloride) Unscented

NOTE TO PHYSICIANS:	<ul style="list-style-type: none"> • Keep victim warm and quiet.
Protection of First-aiders	<ul style="list-style-type: none"> • Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
SECTION 5 - FIREFIGHTING MEASURES	
FLAMMABLE PROPERTIES:	N/A
UNUSUAL FIRE & EXPLOSION HAZARDS:	N/A
EXTINGUISHING MEDIA:	Water spray, foam dry chemical or carbon dioxide
FIREFIGHTING INSTRUCTIONS:	<ul style="list-style-type: none"> • Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect men attempting to stop a leak. • Either allow fire to burn under controlled conditions or extinguish with alcohol type foam or dry chemical. Try to cover liquid spills with foam. • Spill fires may be extinguished by flooding with large amounts of water.
SECTION 6- ACCIDENTAL RELEASE MEASURES	
IF SPILLED/RELEASED:	<ul style="list-style-type: none"> • Eliminate sources of ignition. Warn occupants of downwind areas of fire and explosion hazard. Prevent liquid from entering sewers, watercourses, or low areas. • Dilute contained spill with water.
SECTION 7- HANDLING AND STORAGE	
HANDLING & STORAGE:	<ul style="list-style-type: none"> • Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated place away from incompatible materials. • Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. • This material is not a static accumulator but use proper bonding and/or grounding procedures. Do not pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. • Do not reuse empty containers without commercial cleaning or reconditioning.
SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION	
ENGINEERING CONTROLS:	The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures or otherwise to maintain ambient concentration below the recommended threshold exposure limited. Use explosion-proof ventilation equipment.
RESPIRATORY PROTECTION:	Where concentrations in air may exceed the limits given in this section, it is recommended to use a half face filter mask to protect from overexposure by inhalation. Suitable filter material depends on the amount and type of chemicals being handled in the workplace, but filter material of type "A" or similar may be considered for use.
SKIN PROTECTION:	The use and choice of personal protection equipment is related to the hazard of the product, the workplace, and the way the product is handled. In general, we recommend as a minimum safety precaution that safety glasses with side shields
	and work clothes protecting arms, legs and body be used. In addition, any person visiting an area where this product is handled at processed should at least wear safety glasses with side-shields.
EYE/FACE PROTECTION:	When handling this product, it is recommended to wear splash resistant goggles.
OTHER PROTECTIVE EQUIPMENT:	No smoking, keep good health habits



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McKesson Skin Wipe McKesson Individual Packet BZK (Benzalkonium Chloride) Unscented

SECTION 9 - PHYSICAL / CHEMICAL PROPERTIES	
Note: Unless otherwise stated, values are determined at 20 degrees Celsius (68 degrees Fahrenheit) and 760 mm Hg (1 atm)	
FLASH POINT:	Not available
FLAMMABLE/EXPLOSIVE LIMITS (%):	Not available
AUTO IGNITION TEMPERATURE:	Not available
APPEARANCE:	Not available
PHYSICAL STATE:	Not available
ODOR:	Characterized Odor
pH:	Not available
VAPOR PRESSURE (kPa):	Not available
BOILING POINT:	Not available
FREEZING/MELTING POINT:	Not available
SOLUBILITY IN WATER:	Not available
SPECIFIC GRAVITY:	Not available
EVAPORATION RATE (nBuAc=1):	Not available
SECTION 10 - STABILITY & REACTIVITY	
CHEMICAL STABILITY:	Stable
CONDITIONS TO AVOID:	N/A
INCOMPATIBLE MATERIALS:	Strong Oxidizing agents, acids, acid anhydride, halogen
HAZARDOUS DECOMPOSITION PRODUCTS:	N/A
HAZARDOUS POLYMERIZATION:	N/A
SECTION 11 - TOXICOLOGICAL INFORMATION	
Oral (rat) LD50: Not available Skin (rabbit): Not available	
SECTION 12 – ECOLOGICAL INFORMATION	
ENVIRONMENTAL MOBILITY · This product is water soluble and is expected to remain primarily in water. ENVIRONMENTAL DEGRADABILITY · This product biodegrades rapidly and is "readily" biodegradable according to OECD guidelines. · This substance is expected to be removed in a waste water treatment facility. ECOTOXICITY AND BIOACCUMULATION · Low acute toxicity to aquatic organisms is expected.	
SECTION 13 - DISPOSABLE CONSIDERATIONS	
The following advice only applies to the product as supplied. Combination with other material may well indicate another route or disposal. If in doubt, contact the local Authorities. Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should in any case be taken to ensure compliance with national and local regulations. This product is NOT suitable for disposal by either landfill or via municipal powers, drains, natural streams or rivers. This product is ash less and can be burned directly in appropriate equipment.	

***SAFETY DATA SHEET***

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McKesson Skin Wipe McKesson Individual Packet BZK (Benzalkonium Chloride) Unscented

SECTION 14 - TRANSPORT INFORMATION	
Dangerous goods code: Not available UN code: Not available Packaging groups Not available	
SECTION 15 - REGULATORY INFORMATION	
COMPONENT	
GOVERNING DIRECTIVE:	Dangerous Substances Directive 67/548/EC, as modified.
Warning: S07/09 Keep container tightly closed and in a well ventilated place S16 Keep away from sources of ignition-No Smoking S24/25 Avoid contact with skin and eyes . S26 In case of contact with eyes, flush immediately with plenty of water and seek medical advice S33 Take precautionary measures against static discharges S43B In case of fire, use sand, earth, chemical powder or alcohol type foam	
SECTION 16 - OTHER INFORMATION	
DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES	This information relates onto to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. The information and recommendations contained herein are to the best of the manufacturer's knowledge and belief accurate and reliable as of the date indicated. No representation warranty or guarantee, however, is made with regards to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy itself as to the suitability and completeness of such information for its own particular use. Appropriate warnings and safe-handling procedures should be provided to handlers and users.

END SDS



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SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: McKesson Hydrogen Peroxide, 3%
MFR #: 23-A0013, 23-D0012, 23-F0010

DISTRIBUTED BY: McKesson Medical-Surgical Inc.
9954 Mayland Drive, Suite 4000
Richmond, Virginia 23233

INFORMATION LINE: 1-800-777-4908
Monday – Friday 8:00 a.m. – 6:00 p.m. EST

EMERGENCY PHONE: 1-800-451-8346 (3E Company)
Day or night

PRODUCT DESCRIPTION: McKesson Hydrogen Peroxide, 3%

SECTION 2: HAZARDS IDENTIFICATION

ROUTES OF ENTRY: N/A

POTENTIAL HEALTH EFFECTS:

EYES: Eye Dam. 1;H318 Causes serious eye damage.

SKIN: Skin Corr. 1B;H314 Causes severe skin burns and eye damage.

INGESTION: N/A

INHALATION: N/A

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

CARCINOGENICITY

OSHA: TWA 1 ppm (1.4mg/m3) ACGIH: TWA: 1ppm NTP: N/A IARC: N/A
OTHER: NIOSH: TWA 1ppm (1.4mg/m3)

SECTION 2 NOTES:

CAS No.	Ingredient	Source	Value
0007722-84-1	Hydrogen peroxide	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;



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Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.
001 - Hydrogen Peroxide 3% USP



H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

[Prevention]:

P260 Do not breathe mist / vapors / spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Stay at rest.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P363 Wash contaminated clothing before reuse.

[Storage]:

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

INGREDIENT	CAS NO.	%	Exposure Limits
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SECTION 3 NOTES:

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Hydrogen peroxide CAS Number: 0007722-84-1	1.0 - 10	Ox. Liq. 1;H271 Acute Tox. 4;H332 Acute Tox. 4;H302 Skin Corr. 1A;H314	[1][2]



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Substance classified with a health or environmental hazard.
 Substance with a workplace exposure limit.
 PBT-substance or vPVP-substance.
 *The full text of the phrases are shown in Section 16.

SECTION 4: FIRST-AID MEASURES

EYES: Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

INGESTION: If swallowed do NOT induce vomiting and obtain immediate medical attention.

INHALATION: Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration.
 If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 4 NOTES: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Overview	Inhalation of vapors and mists irritate the nose and throat. Minimally irritating to the eyes and mildly irritating to the skin. See section 2 for further details.
Eyes	Causes serious eye damage.
Skin	Causes severe skin burns and eye damage.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: N/A
 (% BY VOLUME) **LOWER:** N/A

FLASH POINT: N/A
METHOD USED: N/A

AUTOIGNITION TEMPERATURE: N/A

NFPA HAZARD CLASSIFICATION

HEALTH:	N/A	FLAMMABILITY:	N/A	REACTIVITY:	N/A	OTHER:	N/A
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HMIS HAZARD CLASSIFICATION

HEALTH:	N/A	FLAMMABILITY:	N/A	REACTIVITY:	N/A	PERSONAL:	N/A
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EXTINGUISHING MEDIA: Recommended extinguishing media: flood with water spray or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Do not breathe mist/vapors/spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen which supports combustion.

SECTION 5 NOTES: Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: N/A

SECTION 6 NOTES:

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).



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Environmental precautions

Biodegradable, non-hazardous to environment.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing before reuse.

Methods and material for containment and cleaning up.

Flush with water: wear fubber boots, rubber apron and goggles.

SECTION 7: HANDLING AND STORAGE

HANDLING: See section 2 for further details. - [Prevention]:

STORAGE: Handle containers carefully to prevent damage and spillage.

Incompatible materials: Reducing agents, combustible materials.

Store in a cool, dark place. Avoid extreme heat.

See section 2 for further details. - [Storage]:

OTHER PRECAUTIONS: N/A

SECTION 7 NOTES: N/A

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: N/A

VENTILATION:

RESPIRATORY PROTECTION: If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

EYE PROTECTION: Protective goggles if desired.

SKIN PROTECTION: Rubber or vinyl gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

EXPOSURE GUIDELINES:

SECTION 8 NOTES: N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR: Clear, colorless, odorless liquid

PHYSICAL STATE: N/A

pH AS SUPPLIED: N/A

pH (Other): N/A

BOILING POINT: 212°F

MELTING POINT: N/A

FREEZING POINT: N/A

VAPOR PRESSURE (mmHg): 23

@ N/A

DENSITY (lb/gal): N/A

@ N/A

SPECIFIC GRAVITY (H₂O = 1): 1.1



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@ N/A

EVAPORATION RATE: >1**BASIS (=1):** N/A**SOLUBILITY IN WATER:** Complete**PERCENT SOLIDS BY WEIGHT:** N/A

PERCENT VOLATILE: N/A
BY WT/ N/A **BY VOL @** N/A

VOLATILE ORGANIC COMPOUNDS (VOC): N/A

WITH WATER: N/A **LBS/GAL**
WITHOUT WATER: N/A **LBS/GAL**

MOLECULAR WEIGHT: N/A**VISCOSITY:** N/A**SECTION 9 NOTES:**

Heavy Metals: 5 ppm maximum
 Limit of Preservative: NMT 50 mg
 Hydrogen Peroxide Assay: 2.5-3.5%

SECTION 10: STABILITY AND REACTIVITY

STABLE**UNSTABLE****STABILITY:** Stable under normal conditions.**CONDITIONS TO AVOID (STABILITY):** Extreme heat and combustion.**INCOMPATIBILITY (MATERIAL TO AVOID):** Reducing agents, combustible materials.**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Oxygen, which supports combustion.**HAZARDOUS POLYMERIZATION:** Will not occur.**CONDITIONS TO AVOID (POLYMERIZATION):** N/A**SECTION 10 NOTES:** N/A

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Acute Toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Hydrogen peroxide - (7722-84-1)	801.00, Rat - <u>Category:</u> <u>4</u>	2,000.00, Rat - <u>Category:</u> 4	2.00, Rat - <u>Category:</u> <u>2</u>	No data <u>available</u>	No data <u>available</u>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).



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Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

SECTION 11 NOTES: N/A

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

Toxicity : No additional information provided for this product. See section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Hydrogen peroxide - (7722-84-1)	22.00, Oncorhynchus mykiss	2.32, Daphnia magna	0.71 (72 hr), Microcystis pulvereus ssp. incerta

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

Not Measured

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No data available.

SECTION 12 NOTES: N/A

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Observe all federal, state and local regulations when disposing of this substance.



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RCRA HAZARD CLASS: N/A

SECTION 13 NOTES: N/A

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not regulated.**PROPER SHIPPING NAME:** N/A**HAZARD CLASS:** N/A**DOT SHIPPING ID NUMBER:** N/A**DOT PACKING GROUP:** N/A**DOT HAZARD CLASS:** N/A**DOT LABEL STATEMENT:** N/A**WATER TRANSPORTATION****PROPER SHIPPING NAME:** N/A**HAZARD CLASS:** N/A**ID NUMBER:** N/A**PACKING GROUP:** N/A**LABEL STATEMENTS:** N/A**AIR TRANSPORTATION****PROPER SHIPPING NAME:** N/A**HAZARD CLASS:** N/A**ID NUMBER:** N/A**PACKING GROUP:** N/A**LABEL STATEMENTS:** N/A

SECTION 14 NOTES: N/A

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS**TSCA (TOXIC SUBSTANCE CONTROL ACT):** All components of this material are either listed or exempt from listing on the TSCA**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):** N/A**EPCRA 301 Extremely Dangerous:** Hydrogen Peroxide**SARA 311/312 HAZARD CATEGORIES:** To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.**SARA 313 REPORTABLE INGREDIENTS:** Contains NO hazardous ingredients subject to reporting requirements of Section 313 of SARA Title II.**STATE REGULATIONS:****New Jersey RTK Substances (>1%):**

Hydrogen peroxide

Pennsylvania RTK Substances (>1%):

Hydrogen peroxide

Proposition 65 - Carcinogens (>0.0%):

No chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

No chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

No chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):



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No chemicals at levels which require reporting under this statute.

INTERNATIONAL REGULATIONS: N/A

SECTION 15 NOTES: N/A

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: N/A

PREPARATION INFORMATION: N/A

DISCLAIMER: This information relates onto to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. The information and recommendations contained herein are to the best of the manufacturer's knowledge and belief accurate and reliable as of the date indicated. No representation warranty or guarantee, however, is made with regards to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy itself as to the suitability and completeness of such information for its own particular use. Appropriate warnings and safe-handling procedures should be provided to handlers and users.



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SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: McKesson Isopropyl Rubbing Alcohol 70%
MFR #: 23-D0022, 23-D0024

DISTRIBUTED BY: McKesson Medical-Surgical Inc.
9954 Mayland Drive, Suite 4000
Richmond, Virginia 23233

INFORMATION LINE: 1-800-777-4908
Monday – Friday 8:00 a.m. – 6:00 p.m. EST

EMERGENCY PHONE: 1-800-451-8346 (3E Company)
Day or night

PRODUCT DESCRIPTION: Alcohol, Isopropyl 70%

SECTION 2: HAZARDS IDENTIFICATION

ROUTES OF ENTRY: N/A

POTENTIAL HEALTH EFFECTS: N/A

EYES: N/A

SKIN: N/A

INGESTION: N/A

INHALATION: N/A

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

CARCINOGENICITY

OSHA: No

ACGIH: N/A

NTP: No

IARC: Group 1: No, Group 2a: No, Group 2b: No, Group 3: Yes, Group 4: No

OTHER: N/A

SECTION 2 NOTES:

Classification of the substance or mixture
Flam. Liq. 3;H226 Flammable liquid and vapor.
Eye Irrit. 2;H319 Causes serious eye irritation.
STOT SE 3;H336 May cause drowsiness or dizziness.

Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



SDS DATE: 8/7/2015

**Warning**

H226 Flammable liquid and vapor.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness and dizziness.

Prevention

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
 P235 Keep cool.
 P240 Ground / bond container and receiving equipment.
 P241 Use explosion-proof electrical / ventilating / light / equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
 P264 Wash thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves / eye protection / face protection.

Response

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
 P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
 P337+313 If eye irritation persists: Get medical advice / attention.
 P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

Storage

P403+233 Store in a well ventilated place. Keep container tightly closed.
 P405 Store locked up.

Disposal

P501 Dispose of contents / container in accordance with local / national regulations.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>%</u>	<u>Exposure Limits</u>
Isopropyl Alcohol	67-63-0	50-75	OSHA TWA 400 ppm (980mg/m3) STEL 500 ppm ACGIH TWA: 200 ppm STEL: 400 ppm Revised 2003, NIOSH TWA 400 ppm (980 mg/m3) ST 500 ppm (1225 mg/m3)

SECTION 3 NOTES:

GHS Classification:
 Flam. Liq. 2;H225
 Eye Irrit. 2;H319
 STOT SE 3;H336

Substance classified with a health or environmental hazard.



SDS DATE: 8/7/2015

Substance with a workplace exposure limit.
PBT-substance or vPvB-substance.

SECTION 4: FIRST-AID MEASURES

EYES: Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

INGESTION: If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

INHALATION: Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 4 NOTES: N

General: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Overview Signs and Symptoms of Exposure: Giddiness, headache, dizziness and nausea.

Medical Conditions Generally Aggravated by Exposure: Pre-existing and respiratory disorders, may be aggravated by exposure.

Health Hazards (Acute and Chronic): Generally used as a rubdown. Vapor irritates eyes.

High concentration of vapor can irritate respiratory tract, is anesthetic and may cause CNS depression.

Not a carcinogen.

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Inhalation May cause drowsiness or dizziness.

Eyes Causes serious eye irritation.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: 12
(% BY VOLUME) LOWER: 2

FLASH POINT: 77 F
METHOD USED: TCC

AUTOIGNITION TEMPERATURE: N/A

NFPA HAZARD CLASSIFICATION

HEALTH:	N/A	FLAMMABILITY:	N/A	REACTIVITY:	N/A	OTHER:	N/A
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HMIS HAZARD CLASSIFICATION



HEALTH: N/A

FLAMMABILITY: N/A

REACTIVITY: N/A

SDS DATE: 8/7/2015
PERSONAL: N/A**EXTINGUISHING MEDIA:**

Recommended extinguishing media; alcohol resistant foam, CO2, water fog.
Do not use; water jet.

SPECIAL FIRE FIGHTING PROCEDURES:**UNUSUAL FIRE AND EXPLOSION HAZARDS:****HAZARDOUS DECOMPOSITION PRODUCTS:****SECTION 5 NOTES:****Special hazards arising from the substance or mixture**

Hazardous decomposition: Burning may produce carbon monoxide and carbon dioxide contamination.
Keep away from heat / sparks / open flames / hot surfaces - No smoking.
Avoid breathing dust / fume / gas / mist / vapors / spray.

Advice for fire-fighters

Dilution of burning liquid with water will affect extinguishment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:**SECTION 6 NOTES:****Personal precautions, protective equipment and emergency procedures**

Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Methods and material for containment and cleaning up

Eliminate all sources of ignition. Small spills should be flushed with large quantities of water, larger spills should be collected for disposal. Atomize into an incinerator where permitted under appropriate federal, state, and local regulations.

SECTION 7: HANDLING AND STORAGE

HANDLING: Do NOT take internally. Flammable liquid. Keep away from heat, sparks and open flames. Keep container closed.

STORAGE: Handle containers carefully to prevent damage and spillage. Naked flames and smoking should not be permitted in storage areas. It is recommended that fork lift trucks and electrical equipment are protected to the appropriate standard. Incompatible materials: Anyhydride, isocyanate, monomer and organo-metallic.

OTHER PRECAUTIONS: N/A

SECTION 7 NOTES: N/A

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

VENTILATION:



SDS DATE: 8/7/2015

RESPIRATORY PROTECTION: If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

EYE PROTECTION: Protective goggles if desired.

SKIN PROTECTION: Rubber or vinyl gloves if desired.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

WORK HYGIENIC PRACTICES:

Ensure showers and eyewash stations are available. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

EXPOSURE GUIDELINES: N/A

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR: Colorless Liquid, Characteristic

PHYSICAL STATE:

pH AS SUPPLIED: Not Measured

pH (Other): N/A

BOILING POINT: 87°F

MELTING POINT: Not Measured

FREEZING POINT: Not Measured

VAPOR PRESSURE (mmHg): 33

@ N/A

DENSITY (lb/gal): 2.07

@ N/A

SPECIFIC GRAVITY (H₂O = 1): 0.88

@ N/A

EVAPORATION RATE: 2.3

BASIS (=1): N/A

SOLUBILITY IN WATER: Complete

PERCENT SOLIDS BY WEIGHT: N/A

PERCENT VOLATILE: N/A

BY WT/ N/A **BY VOL @** N/A

VOLATILE ORGANIC COMPOUNDS (VOC): N/A

WITH WATER: N/A **LBS/GAL**

WITHOUT WATER: N/A **LBS/GAL**

MOLECULAR WEIGHT: N/A

VISCOSITY: Not Measured

SECTION 9 NOTES: N/A

SECTION 10: STABILITY AND REACTIVITY

STABLE

UNSTABLE

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID (STABILITY): Avoid heat, sparks and open flame.



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INCOMPATIBILITY (MATERIAL TO AVOID): Anhydride, isocyanate, monomer and organo-metallic

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Burning may product carbon monoxide and carbon dioxide contamination.

HAZARDOUS POLYMERIZATION: N/A

CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 10 NOTES:

Reactivity

Hazardous Polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Acute toxicity

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient Isopropyl Alcohol (67-63-0)

Oral LD50 mg/kg , 4,710.00, Rat – Category 5
 Skin LD50 mg/kg, 12,800.00, Rat – Category N/A
 Inhalation Vapor mg/l/4hr, 72.60, Rat – Category N/A
 Inhalation Dust/Mist LD50 mg/l/4h – No data available
 Inhalation Gas LD50 ppm – No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification Category Hazard Description

Acute toxicity (oral) --- Not Applicable
 Acute toxicity (dermal) --- Not Applicable
 Acute toxicity (inhalation) --- Not Applicable
 Skin corrosion/irritation --- Not Applicable
 Serious eye damage/irritation 2 Causes serious eye irritation.
 Respiratory sensitization --- Not Applicable
 Skin sensitization --- Not Applicable
 Germ cell mutagenicity --- Not Applicable
 Carcinogenicity --- Not Applicable
 Reproductive toxicity --- Not Applicable
 STOT-single exposure 3 May cause drowsiness or dizziness.
 STOT-repeated exposure --- Not Applicable
 Aspiration hazard --- Not Applicable

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment.

Ingredient Isopropyl Alcohol (67-63-0)

96 hr LC50Fish, mg/l, 1400.00 Lepomis macrochirus
 48 hr EC50 crustacea, mg/l , 100.00 Daphnia magna
 ErC50 algae mg/l, 100.00 (72 hr) Soenedesmus subspicatus

SECTION 12 NOTES:

Persistence and degradability: There is no data available on the preparation itself.
 Bioaccumulative potential: Not Measured
 Mobility in soil: No data available.



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Results of PBT and vPvB assessment: This product contains no PBT/vPvB chemicals.
Other adverse effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Observe all federal, state and local regulations when disposing of this product.

RCRA HAZARD CLASS: N/A

SECTION 13 NOTES: N/A

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: ISOPROPANOL
HAZARD CLASS: N/A
DOT SHIPPING ID NUMBER: UN 1219
DOT PACKING GROUP: II
DOT HAZARD CLASS: 3
DOT LABEL STATEMENT: N/A

WATER TRANSPORTATION

PROPER SHIPPING NAME: ISOPROPANOL
HAZARD CLASS: 3
ID NUMBER: UN 1219
PACKING GROUP: II
LABEL STATEMENTS: N/A

AIR TRANSPORTATION

PROPER SHIPPING NAME: ISOPROPANOL
HAZARD CLASS: 3
ID NUMBER: UN 1219
PACKING GROUP: II
LABEL STATEMENTS: N/A

SECTION 14 NOTES: EMS-No: F-E, S-D

Small quantity Exception: 49CFR173.4

Exemption for US Ground Transportation: Limited Quantity

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): All components of this material are either listed or exempt from listing on the TSCA inventory.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): N/A

SARA 311/312 HAZARD CATEGORIES: No chemicals at levels which require reporting under this statute.

SARA 313 REPORTABLE INGREDIENTS: Isopropyl Alcohol

STATE REGULATIONS:

Proposition 65 - Carcinogens (>0.0%):

No chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

No chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

No chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

No chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Isopropyl Alcohol

Pennsylvania RTK Substances (>1%):

Isopropyl Alcohol



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INTERNATIONAL REGULATIONS: WHMIS: B2 D2B**SECTION 15 NOTES:**

EPCRA 302 Extremely Hazardous: No chemicals at levels which require reporting under this statute.

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: N/A**PREPARATION INFORMATION:** N/A

DISCLAIMER: This information relates onto to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. The information and recommendations contained herein are to the best of the manufacturer's knowledge and belief accurate and reliable as of the date indicated. No representation warranty or guarantee, however, is made with regards to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy itself as to the suitability and completeness of such information for its own particular use. Appropriate warnings and safe-handling procedures should be provided to handlers and users.



SDS DATE: 11/12/15

SAFETY DATA SHEET**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** McKesson Lubricating Jelly**MFR #:** 119-8919, 119-8942, 119-8946

DISTRIBUTED BY: McKesson Medical-Surgical Inc.
9954 Mayland Drive, Suite 4000
Richmond, Virginia 23233

INFORMATION LINE: 1-800-777-4908
Monday – Friday 8:00 a.m. – 6:00 p.m. EST

EMERGENCY PHONE: 1-800-451-8346 (3E Company)
Day or night

PRODUCT DESCRIPTION: Personal/Professional (clinical) lubricant**SECTION 2: HAZARDS IDENTIFICATION****ROUTES OF ENTRY:** N/A

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE: The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.

POTENTIAL HEALTH EFFECTS:**EYES:** N/A**SKIN:** N/A**INGESTION:** N/A**INHALATION:** N/A**ACUTE HEALTH HAZARDS:** N/A**CHRONIC HEALTH HAZARDS:** N/A**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** N/A**CARCINOGENICITY****OSHA:** N/A**ACGIH:** N/A**NTP:** N/A**IARC:** N/A**OTHER:** N/A**SECTION 2 NOTES:** N/A**SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS****CHEMICAL CHARACTERIZATION:** Mixtures**DESCRIPTION:** Mixture of substances listed below with nonhazardous additions.

INGREDIENT	CAS NO.	%	Exposure Limits
Water, distilled, conductivity or of similar purity	7732-18-5 (RTECS: ZC 0110000)	60-90%	N/A
Propylene Glycol	57-55-6 (RTECS: TY 2000000)	5-10%	N/A
Hydroxypropyl Methylcellulose, Combustible dust	9004-65-3	≤2.5%	N/A

SECTION 3 NOTES: N/A



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SECTION 4: FIRST-AID MEASURES

EYES: Flush eyes with plenty of 1% physiological saline solution. If no saline is available, flush with copious amounts of water.

SKIN: Generally the product does not irritate the skin.

INGESTION: If swallowed and symptoms occur, consult a doctor.

INHALATION: Not a normal route of entry.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 4 NOTES: N/A

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: N/A
 (% BY VOLUME) **LOWER:** N/A

FLASH POINT: N/A
METHOD USED: N/A

AUTOIGNITION TEMPERATURE: N/A

NFPA HAZARD CLASSIFICATION

HEALTH:	N/A	FLAMMABILITY:	N/A	REACTIVITY:	N/A	OTHER:	N/A
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HMIS HAZARD CLASSIFICATION

HEALTH:	N/A	FLAMMABILITY:	N/A	REACTIVITY:	N/A	PERSONAL:	N/A
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EXTINGUISHING MEDIA: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam

SPECIAL FIRE FIGHTING PROCEDURES: If involved in a fire, the packaging materials may produce poisonous gas.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

SECTION 5 NOTES: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures Product is slippery when spilled.

Environmental precautions: No special measures required.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 6 NOTES: N/A

SECTION 7: HANDLING AND STORAGE

HANDLING: No special measures required.



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STORAGE: No special measures required.**OTHER PRECAUTIONS:** N/A**SECTION 7 NOTES:** N/A

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: No further data; see section 7.**VENTILATION:** N/A**RESPIRATORY PROTECTION:** N/A**EYE PROTECTION:** Goggles recommended during refilling.**SKIN PROTECTION:** N/A**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** N/A**WORK HYGIENIC PRACTICES:** The usual precautionary measures for handling chemicals should be followed.**EXPOSURE GUIDELINES:**

Components with occupational exposure limits:

57-55-6 Propylene Glycol

WEEL Long-term value: 10 mg/m³**SECTION 8 NOTES:** N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR: Translucent, Odorless**PHYSICAL STATE:** Gel**pH AS SUPPLIED:** 5.6 – 6.7**pH (Other):** N/A**BOILING POINT:** °F**MELTING POINT:** N/A**FREEZING POINT:** N/A**VAPOR PRESSURE (mmHg):** N/A

@ N/A

DENSITY (20DegC, 68DegF): 1.01 g/cm³ (8.428lbs/gal)

@ N/A

SPECIFIC GRAVITY (H₂O = 1): N/A

@ N/A

EVAPORATION RATE: N/A**BASIS (=1):** N/A**SOLUBILITY IN WATER:** Soluble**PERCENT SOLIDS BY WEIGHT:** N/A**PERCENT VOLATILE:** N/A**BY WT/** N/A **BY VOL @** N/A**VOLATILE ORGANIC COMPOUNDS (VOC):** N/A**WITH WATER:** N/A **LBS/GAL****WITHOUT WATER:** N/A **LBS/GAL****MOLECULAR WEIGHT:** N/A



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VISCOSITY: N/A

SECTION 9 NOTES: N/A

SECTION 10: STABILITY AND REACTIVITY

STABLE**UNSTABLE****STABILITY:** Stable under normal conditions**CONDITIONS TO AVOID (STABILITY):** If involved in a fire, the packaging materials may produce poisonous gas.**INCOMPATIBILITY (MATERIAL TO AVOID):****HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:****HAZARDOUS POLYMERIZATION:** N/A**CONDITIONS TO AVOID (POLYMERIZATION):** N/A**SECTION 10 NOTES:** N/A

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:**ACUTE TOXICITY:**

LD/LC50 values that are relevant for classification:

57-55-6	Propylene Glycol	
Oral	LD50	20000 mg/kg (rat)
Oral	LD50	20800 mg/kg (rabbit)
Inhalative	LC50/96 hours	52930 mg/l (Pimephales)
	Intravenous	6630 mg/kg (mouse)
		6423 mg/kg (rat)
		6500 mg/kg (rabbit)

SECTION 11 NOTES: The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

AQUATIC TOXICITY: 57-55-6 Propylene Glycol
EC500 >1000 mg/l (daphnia)

PERSISTENCE AND DEGRADABILITY: No further relevant information available.**BIOACCUMULATIVE POTENTIAL:** No further relevant information available.**MOBILITY IN SOIL:** No further relevant information available.**GENERAL NOTES:** Not known to be hazardous to water.**RESULTS AND PBT AND vPvB ASSESSMENT:****PBT:** Not applicable.**vPvB:** Not applicable.**OTHER ADVERSE EFFECTS:** No further relevant information available.**SECTION 12 NOTES:** N/A

SECTION 13: DISPOSAL CONSIDERATIONS



SDS DATE: 11/12/15

WASTE DISPOSAL METHOD: Recommendation: Small quantities can be disposed of with household waste.

UNCLEANED PACKAGINGS: Recommendation: Disposal must be made according to official regulations.

RCRA HAZARD CLASS: N/A

SECTION 13 NOTES: N/A

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

DOT SHIPPING ID NUMBER: N/A

DOT PACKING GROUP: N/A

DOT HAZARD CLASS: N/A

DOT LABEL STATEMENT:

N/A

WATER TRANSPORTATION

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENTS:

N/A

AIR TRANSPORTATION

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENTS: N/A

SECTION 14 NOTES: ADR: Regulated

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: The product is subject to be classified according with the latest version of the regulations on hazardous substances.

TSCA (TOXIC SUBSTANCE CONTROL ACT): N/A

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): N/A

SARA 311/312 HAZARD CATEGORIES: N/A

SARA 313 REPORTABLE INGREDIENTS: Contains NO hazardous ingredients subject to reporting requirements of Section 313 of SARA Title II.

STATE REGULATIONS: N/A

INTERNATIONAL REGULATIONS: N/A

SECTION 15 NOTES: N/A

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose. A Chemical Safety Assessment has not been carried out.

PREPARATION INFORMATION: N/A



SDS DATE: 11/12/15

WASTE DISPOSAL METHOD: Recommendation: Small quantities can be disposed of with household waste.

ABBREVIATIONS AND ACRONYMS:

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road



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ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

DISCLAIMER: This information relates onto to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. The information and recommendations contained herein are to the best of the manufacturer's knowledge and belief accurate and reliable as of the date indicated. No representation warranty or guarantee, however, is made with regards to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy itself as to the suitability and completeness of such information for its own particular use. Appropriate warnings and safe-handling procedures should be provided to handlers and users.



MetriWash™
Date Prepared: 12/16/14

SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: MetriWash™
Product Use: Instrument Detergent.

Manufacturer: METREX™ RESEARCH
1717 W. Collins Ave.
Orange, CA 92867
U.S.A.

Information Phone Number: 1-800-841-1428 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date Of Preparation/Revision: 12/16/14

Section 2. Hazards Identification

GHS / HAZCOM 2012 Classification:

Eye Damage Category 1
Skin Irritation Category 2

Label Elements

Danger!



Hazard Phrases

Causes skin irritation.
Causes serious eye damage.

Precautionary Phrases:

Wash thoroughly after handling.
Wear protective gloves, eye protection and face protection.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.



MetriWash™
Date Prepared: 12/16/14

Section 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Water and non-hazardous ingredients	Mixture	30-60%
Nonionic Surfactants	Proprietary	10-20%

Section 4. First Aid Measures

Inhalation: Move to fresh air if effects occur. Seek medical attention if symptoms develop and persist.

Skin Contact: Wash thoroughly with soap and water for several minutes. Seek medical attention if irritation develops and persists. Remove and launder contaminated clothing.

Eye Contact: Hold eye open and rinse slowly and gently with water for 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Seek immediate medical attention.

Ingestion: If the victim is alert, have them rinse their mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Do not attempt to give anything by mouth to an unconscious person. Seek medical advice by calling a Poison Center or doctor.

Most important symptoms and effects, acute and delayed: Causes severe eye irritation or burns. Permanent damage may occur. Causes skin irritation. Inhalation of mists may cause irritation of the mucous membranes and upper respiratory tract.

Indication of immediate medical attention and special treatment, if needed: If eye contact occurs, get immediate medical attention.

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any extinguishing media that is appropriate for the surrounding fire. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: After water boils off, combustion of residue may produce carbon monoxide, carbon dioxide, nitrogen oxides, and hydrocarbons.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Environmental Precautions: Avoid release to the environment. Report spill as required by local and federal regulations.

Methods and Materials for Containment and Cleaning up: Collect material with an inert absorbent material and place in appropriate, labeled container for disposal.



MetriWash™
Date Prepared: 12/16/14

Section 7. Handling and Storage

Precautions for Safe Handling: Prevent contact with eyes. Avoid contact with skin and clothing. Avoid generating and breathing mists. Wear appropriate eye protection and gloves when handling (see Section 8). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Conditions for Safe Storage, Including any Incompatibilities: Store at room temperature. Keep containers closed.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

Chemical	Exposure Limit
Nonionic Surfactants	None Established

Appropriate Engineering Controls: General ventilation should be adequate for normal use. For operations where exposure are excessive, mechanical ventilation such as local exhaust may be needed to minimize exposure.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where the exposures are excessive, a NIOSH approved dust/mist respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Impervious gloves such as neoprene are recommended.

Eye Protection: Safety goggles are recommended for operations where eye contact is possible.

Skin Protection: Wear protective clothing as needed to avoid skin contact.

Hygiene measures: Suitable eye wash and washing facilities should be available in the work area.

Section 9. Physical and Chemical Properties

Appearance:	Blue liquid.	Odor:	Odorless
Odor Threshold:	Not available	pH:	6.6-8.4
Melting/Freezing Point:	Not available	Boiling Point/Range:	100°C / 212°F
Flash Point:	Not flammable	Evaporation Rate:	Not available
Flammability: (Solid, Gas)	Not applicable	Flammability Limits:	Not applicable
Vapor Pressure:	Same as water	Vapor Density:	Same as water
Relative Density:	1.008	Solubilities:	Complete (water)
Partition Coefficient: (N-Octanol/Water)	Not available	Autoignition Temperature:	Not flammable
Decomposition Temperature:	Not available	Viscosity:	Not available



MetriWash™
Date Prepared: 12/16/14

Section 10. Stability and Reactivity

Reactivity: None known.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known.

Conditions to avoid: Avoid excessive heat.

Incompatible Materials: Strong oxidizing agents, strong acids and bleach.

Hazardous decomposition products: Thermal decomposition may produce carbon monoxide and carbon dioxide.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: May cause irritation of the nose, throat and upper respiratory tract. Inhalation of mists may cause an allergic reaction.

Skin Contact: Causes irritation with redness and pain.

Eye Contact: Causes irritation with tearing, redness and pain. Permanent damage may occur.

Ingestion: Ingestion may cause gastrointestinal disturbances.

Chronic Hazards: None currently known.

Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Mutagenic Toxicity: None of the components have been shown to cause mutagenic activity.

Acute Toxicity Values: No toxicity data is available for the product. Acute Toxicity Estimate (ATE): 10505 mg/kg

Nonionic Surfactants: Oral rat LD50 1300 mg/kg; Dermal rabbit LS50 >2000 mg/kg

Section 12. Ecological Information

Toxicity: No toxicity data available for product.

Nonionic Surfactants: 96 hr EC50 *Lepomis macrochirus* 1-1.8 mg/L; 48 hr EC0 *daphnia magna* 12.2 mg/L

Persistence and degradability: Nonionic surfactants are readily biodegradable.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: None known



MetriWash™
Date Prepared: 12/16/14

Section 13. Disposal Considerations

Solution Disposal: For unused solution, flush thoroughly with large quantities of water into sewage disposal system in accordance with Federal, State, and local regulations. For used solution, the waste solution must be characterized by the generator and disposed of in accordance with Federal, State, and local regulations.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in trash.

Section 14. Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	None	Not Regulated			None
Canada TDG	None	Not Regulated			None
IMDG	None	Not Regulated			None
IATA/ICAO	None	Not Regulated			None

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Acute Health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product contains a chemical known to the State of California to cause cancer or reproductive toxicity.

Canadian Regulations

National Pollutant Release Inventory (NPRI): This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements NPRI: None

WHMIS Classification: Class D-2-B

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.



MetriWash™
Date Prepared: 12/16/14

International Inventories

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

Australia: All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

China: All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

European Union: All the components in this product are listed on the EINECS inventory or exempt.

Korea: All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or exempt.

New Zealand: All of the components in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempt.

Philippines: All of the components of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) or exempt.

Section 16. Other Information

NFPA Rating: Fire: 0 Health: 3 Instability: 0

Effective Date: 12/16/2014

Supersedes Date: 12/18/2012

Revision Summary: All sections. Converted to GHS format

The information and recommendations set forth herein are taken from sources believed to be accurate as of the date of preparation, however, METREX™ RESEARCH makes no warranty with respect to the accuracy or suitability of the recommendations, and assumes no liability to any use thereof.



Nitrogen, refrigerated liquid

Safety Data Sheet P-4630

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.
Date of issue: 01/01/1979 Revision date: 10/21/2016 Supersedes: 10/03/2014

SECTION: 1. Product and company identification

1.1. Product identifier

Product form : Substance
Name : Nitrogen, refrigerated liquid
CAS No : 7727-37-9
Formula : N₂
Other means of identification : Nitrogen (cryogenic liquid), Nitrogen, Medipure Liquid Nitrogen

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Medical applications
Industrial use
Food applications

1.3. Details of the supplier of the safety data sheet

Praxair, Inc.
10 Riverview Drive
Danbury, CT 06810-6268 - USA
T 1-800-772-9247 (1-800-PRAXAIR) - F 1-716-879-2146
www.praxair.com

1.4. Emergency telephone number

Emergency number : Onsite Emergency: 1-800-645-4633

CHEMTREC, 24hr/day 7days/week
— Within USA: 1-800-424-9300, Outside USA: 001-703-527-3887
(collect calls accepted, Contract 17729)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

GHS-US classification

Refrigerated liquefied gas H281

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS04

Signal word (GHS-US) :

WARNING

Hazard statements (GHS-US) :

H281 - CONTAINS REFRIGERATED GAS; MAY CAUSE CRYOGENIC BURNS OR INJURY
OSHA-H01 - MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION

Precautionary statements (GHS-US) :

P202 - Do not handle until all safety precautions have been read and understood
P271+P403 - Use and store only outdoors or in a well-ventilated place
P282 - Wear cold insulating gloves/face shield/eye protection. cold insulating gloves, face shield, eye protection
CGA-PG05 - Use a back flow preventive device in the piping
CGA-PG24 - DO NOT change or force fit connections
CGA-PG06 - Close valve after each use and when empty
CGA-PG23 - Always keep container in upright position

2.3. Other hazards

Other hazards not contributing to the : Asphyxiant in high concentrations



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classification Contact with liquid may cause cold burns/frostbite.

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Name	Product identifier	%
Nitrogen, refrigerated liquid (Main constituent)	(CAS No) 7727-37-9	100

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- First-aid measures after skin contact : The liquid may cause frostbite. For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). Water temperature should be tolerable to normal skin. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. In case of massive exposure, remove clothing while showering with warm water. Seek medical evaluation and treatment as soon as possible.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately.. Get immediate medical attention.
- First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

- Reactivity : No reactivity hazard other than the effects described in sub-sections below.

5.3. Advice for firefighters

- Firefighting instructions : DANGER! Extremely cold liquid and gas under pressure. Take care not to direct spray onto vents on top of container. Do not discharge sprays directly into liquid; cryogenic liquid can freeze water rapidly
- Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.
- Protection during firefighting : Compressed gas: asphyxiant. Suffocation hazard by lack of oxygen.
- Special protective equipment for fire fighters : Use self-contained breathing apparatus. Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.



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Specific methods	<p>: Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas containers to rupture. Cool endangered containers with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems</p> <p>Exposure to fire may cause containers to rupture/explode</p> <p>Stop flow of product if safe to do so</p> <p>Use water spray or fog to knock down fire fumes if possible</p> <p>If leaking do not spray water onto container. Water surrounding area (from protected position) to contain fire.</p>
Other information	<p>: Cryogenic liquid causes severe frostbite, a burn-like injury. Heat of fire can build pressure in a closed container and cause it to rupture. Venting vapors may obscure visibility. Air will condense on surfaces such as vaporizers or piping exposed to liquid or cold gas. Nitrogen, which has a lower boiling point than oxygen, evaporates first, leaving an oxygen-enriched condensate</p> <p>Containers are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT.).</p>

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Ensure adequate air ventilation. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Stop leak if safe to do so.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Try to stop release.

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g. wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.



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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, well-ventilated place. Store and use with adequate ventilation. Store only where temperature will not exceed 125°F (52°C). Firmly secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods

OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE: When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Nitrogen, refrigerated liquid (7727-37-9)	
ACGIH	Not established
USA OSHA	Not established

8.2. Exposure controls

Appropriate engineering controls : Oxygen detectors should be used when asphyxiating gases may be released. Systems under pressure should be regularly checked for leakages. Provide adequate general and local exhaust ventilation. Consider work permit system e.g. for maintenance activities.

Hand protection : Wear working gloves when handling gas containers.

Eye protection : Wear safety glasses with side shields. Wear goggles and a face shield when transfilling or breaking transfer connections.

Respiratory protection : Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres.

Thermal hazard protection : Wear cold insulating gloves. Wear cold insulating gloves when transfilling or breaking transfer connections.

Environmental exposure controls : None necessary.

Other information : Wear safety shoes while handling containers.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas

Appearance : Colorless liquid.

Molecular mass : 28 g/mol

Color : Colorless liquid.

Odor : No odor warning properties.

Odor threshold : No data available

pH : Not applicable.

Relative evaporation rate (butyl acetate=1) : No data available

Relative evaporation rate (ether=1) : Not applicable.

Melting point : -210 °C

Freezing point : No data available

Boiling point : -195.8 °C

Flash point : No data available

Critical temperature : -149.9 °C



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Auto-ignition temperature	: Not applicable.
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: Not applicable.
Critical pressure	: 3390 kPa
Relative vapor density at 20 °C	: No data available
Relative density	: 0.8
Density	: 808.5 kg/m ³ Liquid density at boiling point and 1 atm
Relative gas density	: 0.97
Solubility	: Water: 20 mg/l
Log Pow	: Not applicable.
Log Kow	: Not applicable.
Viscosity, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Explosive properties	: Not applicable.
Oxidizing properties	: None.
Explosion limits	: No data available

9.2. Other information

Gas group	: Refrigerated liquefied gas
Additional information	: Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Avoid high temperatures, exposure to Lithium (Li), Neodymium (Nd), Titanium (Ti), Magnesium.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Under certain conditions, nitrogen can react violently with lithium, neodymium, titanium (above 1472°F/800°C), and magnesium to form nitrides. At high temperature, it can also combine with oxygen and hydrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified pH: Not applicable.
Serious eye damage/irritation	: Not classified pH: Not applicable.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

EN (English US)

SDS ID: P-4630

5/9



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Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No ecological damage caused by this product.

12.2. Persistence and degradability

Nitrogen, refrigerated liquid (7727-37-9)

Persistence and degradability	No ecological damage caused by this product.
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12.3. Bioaccumulative potential

Nitrogen, refrigerated liquid (7727-37-9)

Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	No ecological damage caused by this product.

12.4. Mobility in soil

Nitrogen, refrigerated liquid (7727-37-9)

Mobility in soil	No data available.
Ecology - soil	No ecological damage caused by this product.

12.5. Other adverse effects

Other adverse effects	: Can cause frost damage to vegetation.
Effect on ozone layer	: None
Effect on the global warming	: No known effects from this product

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

SECTION 14: Transport information

In accordance with DOT	
Transport document description	: UN1977 Nitrogen, refrigerated liquid (cryogenic liquid), 2.2
UN-No.(DOT)	: UN1977
Proper Shipping Name (DOT)	: Nitrogen, refrigerated liquid cryogenic liquid
Class (DOT)	: 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115
Hazard labels (DOT)	: 2.2 - Non-flammable gas





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DOT Special Provisions (49 CFR 172.102)	<p>: 345 - "Nitrogen, refrigerated liquid (cryogenic liquid), UN1977" transported in open cryogenic receptacles with a maximum capacity of 1 L are not subject to the requirements of this subchapter. The receptacles must be constructed with glass double walls having the space between the walls vacuum insulated and each receptacle must be transported in an outer packaging with sufficient cushioning and absorbent materials to protect the receptacle from damage</p> <p>346 - "Nitrogen, refrigerated liquid (cryogenic liquid), UN1977" transported in accordance with the requirements for open cryogenic receptacles in §173.320 and this special provision are not subject to any other requirements of this subchapter. The receptacle must contain no hazardous materials other than the liquid nitrogen which must be fully absorbed in a porous material in the receptacle</p> <p>T75 - When portable tank instruction T75 is referenced in Column (7) of the 172.101 Table, the applicable refrigerated liquefied gases are authorized to be transported in portable tanks in accordance with the requirements of 178.277 of this subchapter</p> <p>TP5 - For a portable tank used for the transport of flammable refrigerated liquefied gases or refrigerated liquefied oxygen, the maximum rate at which the portable tank may be filled must not exceed the liquid flow capacity of the primary pressure relief system rated at a pressure not exceeding 120 percent of the portable tank's design pressure. For portable tanks used for the transport of refrigerated liquefied helium and refrigerated liquefied atmospheric gas (except oxygen), the maximum rate at which the tank is filled must not exceed the liquid flow capacity of the pressure relief device rated at 130 percent of the portable tank's design pressure. Except for a portable tank containing refrigerated liquefied helium, a portable tank shall have an outage of at least two percent below the inlet of the pressure relief device or pressure control valve, under conditions of incipient opening, with the portable tank in a level attitude. No outage is required for helium</p>
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Additional information

Emergency Response Guide (ERG) Number	: 121 (UN1066);120 (UN1977)
Other information	: No supplementary information available.
Special transport precautions	<p>: Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers:</p> <ul style="list-style-type: none"> - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure cylinder valve is closed and not leaking. - Ensure valve outlet cap nut or plug (where provided) is correctly fitted. - Ensure valve protection device (where provided) is correctly fitted.

Transport by sea

UN-No. (IMDG)	: 1977
Proper Shipping Name (IMDG)	: NITROGEN, REFRIGERATED LIQUID
Class (IMDG)	: 2.2 - Non-flammable, non-toxic gases
MFAG-No	: 120

Air transport

UN-No. (IATA)	: 1977
Proper Shipping Name (IATA)	: NITROGEN, REFRIGERATED LIQUID
Class (IATA)	: 2
Civil Aeronautics Law	: Gases under pressure/Gases nonflammable nontoxic under pressure

SECTION 15: Regulatory information

15.1. US Federal regulations

Nitrogen, refrigerated liquid (7727-37-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	<p>Immediate (acute) health hazard</p> <p>Sudden release of pressure hazard</p> <p>All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory.</p>



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This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Nitrogen, refrigerated liquid (7727-37-9)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Nitrogen, refrigerated liquid (7727-37-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.2.2. National regulations

Nitrogen, refrigerated liquid (7727-37-9)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

Nitrogen, refrigerated liquid(7727-37-9)	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm



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SECTION 16: Other information

Other information

: When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Before using any plastics, confirm their compatibility with this product

Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information

The opinions expressed herein are those of qualified experts within Praxair, Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair, Inc, it is the user's obligation to determine the conditions of safe use of the product

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PRAXAIR and the Flowing Airstream design are trademarks or registered trademarks of Praxair Technology, Inc. in the United States and/or other countries.

NFPA health hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

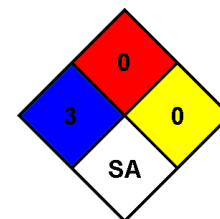
: 0 - Materials that will not burn.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

NFPA specific hazard

: SA - This denotes gases which are simple asphyxiants.



HMIS III Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

: 0 Minimal Hazard

Physical

: 2 Moderate Hazard

SDS US (GHS HazCom 2012) - Praxair

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



SAFETY DATA SHEET

Revision date: 28-Mar-2016

Version: 3.3

Page 1 of 10

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Nitroglycerin Tablets (0.4, and 0.6 mg)

Trade Name: NITROSTAT; VERNIES
Chemical Family: Mixture

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product for the treatment of angina pectoris

Details of the Supplier of the Safety Data Sheet

Pfizer Inc
Pfizer Pharmaceuticals Group
 235 East 42nd Street
 New York, New York 10017
 1-800-879-3477

Pfizer Ltd
 Ramsgate Road
 Sandwich, Kent
 CT13 9NJ
 United Kingdom
 +00 44 (0)1304 616161

Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: pfizer-MSDS@pfizer.com

Emergency telephone number:
International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification

Acute Oral Toxicity: Category 4
 Acute Toxicity - Dusts and Mists: Category 4
 Specific target organ systemic toxicity (repeated exposure): Category 2

Label Elements

Signal Word: Warning
Hazard Statements: H304 - May be fatal if swallowed and enters airways
 H332 - Harmful if inhaled
 H373 - May cause damage to organs through prolonged or repeated exposure: cardiovascular

Precautionary Statements: P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash hands thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P301+ P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell
 P312 - Call a POISON CENTRE/doctor/physician if you feel unwell
 P501 - Dispose of contents/container in accordance with all local and national regulations

SAFETY DATA SHEET

Material Name: Nitroglycerin Tablets (0.4, and 0.6 mg)
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**Other Hazards
Note:**

No data available

This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Nitroglycerin	55-63-0	200-240-8	Acute Tox. 2 (H300) Acute Tox. 2 (H310) STOT RE 2 (H373) Aquatic Chronic 2 (H411) Acute Tox. 2 (H330) Unst. Expl. (H200)	1.14 - 1.5
Glyceryl monostearate	31566-31-1	250-705-4	Not Listed	*
Silicon dioxide, colloidal NF	7631-86-9	231-545-4	Not Listed	*
Calcium stearate	1592-23-0	216-472-8	Not Listed	*
Starch, pregelatinized	9005-25-8	232-679-6	Not Listed	*

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Lactose NF, monohydrate	64044-51-5	Not Listed	Not Listed	*

Additional Information:

* Proprietary

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

For the full text of the CLP/GHS abbreviations mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact:

Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

Skin Contact:

Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

Ingestion:

Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

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Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure: For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.
Medical Conditions Aggravated by Exposure: None known

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician: None

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use carbon dioxide, dry chemical, or water spray.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products: Formation of toxic gases is possible during heating or fire.

Fire / Explosion Hazards: Not applicable

Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

Measures for Cleaning / Collecting: Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly.

Additional Consideration for Large Spills: Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Minimize dust generation and accumulation. If tablets or capsules are crushed and/or broken, avoid breathing dust and avoid contact with eyes, skin, and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store as directed by product packaging.

Specific end use(s): Pharmaceutical product

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to available public information for specific member state Occupational Exposure Limits.

Nitroglycerin

ACGIH Threshold Limit Value (TWA)	0.05 ppm
ACGIH - Skin Absorption Designation	Skin - potential significant contribution to overall exposure by the cutaneous route
Australia TWA	0.05 ppm
	0.46 mg/m ³
Austria OEL - MAKs	0.05 ppm
	0.5 mg/m ³
Belgium OEL - TWA	0.05 ppm
	0.47 mg/m ³
Czech Republic OEL - TWA	0.5 mg/m ³
Estonia OEL - TWA	0.03 ppm
	0.3 mg/m ³
Finland OEL - TWA	0.03 ppm
	0.3 mg/m ³
France OEL - TWA	0.1 ppm
	1 mg/m ³
Germany - TRGS 900 - TWAs	0.01 ppm
	0.094 mg/m ³
Germany (DFG) - MAK	0.01 ppm
	0.094 mg/m ³
Germany - Biological Exposure Limit:	0.5 µg/L
Greece OEL - TWA	0.2 ppm
	2 mg/m ³
Hungary OEL - TWA	0.5 mg/m ³
Ireland OEL - TWAs	0.05 ppm
	0.5 mg/m ³
Japan - OELs - Ceilings	0.05 ppm
	0.46 mg/m ³
Lithuania OEL - TWA	0.03 ppm
	0.3 mg/m ³
OSHA - Final PELs - Skin Notations:	prevent or reduce skin absorption
Poland OEL - TWA	0.5 mg/m ³
Portugal OEL - TWA	0.05 ppm
Romania OEL - TWA	0.006 ppm
	0.05 mg/m ³
Slovakia OEL - TWA	0.05 ppm
	0.47 mg/m ³
Slovenia OEL - TWA	0.05 ppm
	0.47 mg/m ³
Spain OEL - TWA	0.05 ppm
	0.5 mg/m ³
Sweden OEL - TWAs	0.03 ppm
	0.3 mg/m ³
Switzerland OEL - TWAs	0.01 ppm
	0.094 mg/m ³
UK - Biological Exposure Limit:	15 µmol/mol creatinine
Vietnam OEL - TWAs	0.5 mg/m ³

Glyceryl monostearate

ACGIH Threshold Limit Value (TWA)	10 mg/m ³
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Lithuania OEL - TWA	5 mg/m ³
Sweden OEL - TWAs	5 mg/m ³
Silicon dioxide, colloidal NF	
Australia TWA	2 mg/m ³
Austria OEL - MAKs	4 mg/m ³
	0.3 mg/m ³
Czech Republic OEL - TWA	0.1 mg/m ³
	4.0 mg/m ³
Estonia OEL - TWA	2 mg/m ³
Finland OEL - TWA	5 mg/m ³
Germany - TRGS 900 - TWAs	4 mg/m ³
Germany (DFG) - MAK	4 mg/m ³
Ireland OEL - TWAs	6 mg/m ³
	2.4 mg/m ³
Latvia OEL - TWA	1 mg/m ³
OSHA - Final PELs - Table Z-3 Mineral D:	20 mppcf
	Listed
Slovakia OEL - TWA	4.0 mg/m ³
Switzerland OEL - TWAs	4 mg/m ³
	0.3 mg/m ³
Calcium stearate	
ACGIH Threshold Limit Value (TWA)	10 mg/m ³
Lithuania OEL - TWA	5 mg/m ³
Sweden OEL - TWAs	5 mg/m ³
Starch, pregelatinized	
ACGIH Threshold Limit Value (TWA)	10 mg/m ³
Australia TWA	10 mg/m ³
Belgium OEL - TWA	10 mg/m ³
Bulgaria OEL - TWA	10.0 mg/m ³
Czech Republic OEL - TWA	4.0 mg/m ³
Greece OEL - TWA	10 mg/m ³
	5 mg/m ³
Ireland OEL - TWAs	10 mg/m ³
	4 mg/m ³
OSHA - Final PELs - TWAs:	15 mg/m ³
Portugal OEL - TWA	10 mg/m ³
Slovakia OEL - TWA	4 mg/m ³
Spain OEL - TWA	10 mg/m ³
Switzerland OEL - TWAs	3 mg/m ³
Exposure Controls	
Engineering Controls:	Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.
Personal Protective Equipment:	Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).
Hands:	Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.
Eyes:	Wear safety glasses or goggles if eye contact is possible.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin: Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.
Respiratory protection: If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Tablet	Color:	White
Odor:	No data available.	Odor Threshold:	No data available.
Molecular Formula:	Mixture	Molecular Weight:	Mixture

Solvent Solubility: No data available
Water Solubility: No data available
pH: No data available.
Melting/Freezing Point (°C): No data available
Boiling Point (°C): No data available.

Partition Coefficient: (Method, pH, Endpoint, Value)

Calcium stearate

No data available

Glyceryl monostearate

No data available

Lactose NF, monohydrate

No data available

Nitroglycerin

No data available

Silicon dioxide, colloidal NF

No data available

Starch, pregelatinized

No data available

Decomposition Temperature (°C): No data available.

Evaporation Rate (Gram/s): No data available

Vapor Pressure (kPa): No data available

Vapor Density (g/ml): No data available

Relative Density: No data available

Viscosity: No data available

Flammability:

Autoignition Temperature (Solid) (°C):

No data available

Flammability (Solids):

No data available

Flash Point (Liquid) (°C):

No data available

Upper Explosive Limits (Liquid) (% by Vol.):

No data available

Lower Explosive Limits (Liquid) (% by Vol.):

No data available. The active ingredient in this formulation is highly explosive. However, based on the amount of active ingredient contained in this product it is not expected to pose an explosion risk.

Polymerization:

Will not occur

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use.

Possibility of Hazardous Reactions

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10. STABILITY AND REACTIVITY

Oxidizing Properties:	No data available
Conditions to Avoid:	Avoid direct sunlight, conditions that might generate heat, and sources of ignition.
Incompatible Materials:	As a precautionary measure, keep away from strong oxidizers
Hazardous Decomposition Products:	None known

11. TOXICOLOGICAL INFORMATION**Information on Toxicological Effects**

General Information:	The information included in this section describes the potential hazards of the individual ingredients.
Short Term:	May be absorbed through the skin and cause systemic effects. Chest pain, acute myocardial infarction, and sudden death have occurred during temporary withdrawal of organic nitrates from industrial workers exposed for long periods of time.
Known Clinical Effects:	Headache, which may be severe and persistent, may occur immediately after use. Vertigo, dizziness, weakness, palpitation, and other manifestations of postural hypotension may develop occasionally. Flushing, drug rash, and exfoliative dermatitis have been reported in patients receiving nitrate therapy.

Acute Toxicity: (Species, Route, End Point, Dose)**Glyceryl monostearate**

Mouse IP LD50 200 mg/kg

Nitroglycerin

Rat Oral LD50 105 mg/kg
Mouse Oral LD50 115mg/kg
Rabbit Dermal LD50 > 280mg/kg
Rat Dermal LD50 > 29mg/kg
Rat IV LD50 23.2mg/kg

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))**Nitroglycerin**

Fertility and Embryonic Development Rat Oral 434 mg/kg/day NOAEL Negative
Embryo / Fetal Development Rabbit Oral 240 mg/kg/day NOAEL Not Teratogenic

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)**Nitroglycerin**

Bacterial Mutagenicity (Ames) *Salmonella* Positive
In Vivo Dominant Lethal Assay Rat Negative
In Vitro Cytogenetics Rat Negative

Carcinogenicity: (Duration, Species, Route, Dose, End Point, Effect(s))**Nitroglycerin**

2 Year(s) Rat Oral 434 mg/kg/day LOAEL Liver, Male reproductive system
2 Year(s) Mouse Oral 1058 mg/kg/day NOAEL Not carcinogenic

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11. TOXICOLOGICAL INFORMATION

Carcinogen Status: None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

Silicon dioxide, colloidal NF
IARC: Group 3 (Not Classifiable)

12. ECOLOGICAL INFORMATION

Environmental Overview: Based on the concentration of the active ingredient in the formulation, No harmful effects to aquatic organisms are expected.

Toxicity:

Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

Nitroglycerin

Lepomis macrochirus (Bluegill Sunfish) LC50 96 Hours 1.91 mg/L
 Midge LC50 48 Hours 20 mg/L

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

Nitroglycerin
RCRA - P Series Wastes Listed

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

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15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Nitroglycerin

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	10 lb
California Proposition 65	4.54 kg
Inventory - United States TSCA - Sect. 8(b)	Not Listed
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Present
EU EINECS/ELINCS List	Schedule 3
	Schedule 4
	200-240-8

Glyceryl monostearate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	250-705-4

Silicon dioxide, colloidal NF

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-545-4

Calcium stearate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	216-472-8

Starch, pregelatinized

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the obligations of Register:	Present
EU EINECS/ELINCS List	232-679-6

Lactose NF, monohydrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present

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15. REGULATORY INFORMATION

REACH - Annex IV - Exemptions from the obligations of Register:	Present
EU EINECS/ELINCS List	Not Listed

16. OTHER INFORMATION**Text of CLP/GHS Classification abbreviations mentioned in Section 3**

Explosives-Unstable explosives; H200 - Unstable explosive
Acute toxicity, oral-Cat.2; H300 - Fatal if swallowed
Acute toxicity, dermal-Cat.2; H310 - Fatal in contact with skin
Acute toxicity, inhalation-Cat.2; H330 - Fatal if inhaled
Specific target organ toxicity, repeated exposure-Cat.2; H373 - May cause damage to organs through prolonged or repeated exposure
Hazardous to the aquatic environment, chronic toxicity-Cat.2; H411 - Toxic to aquatic life with long lasting effects

Reasons for Revision: Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 16 - Other Information.

Revision date: 28-Mar-2016

Prepared by: Product Stewardship Hazard Communication
Pfizer Global Environment, Health, and Safety Operations

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet

OC-Auto[®] Sampling Bottles**Section 1 Identification**

Product name	OC-Auto [®] Sampling Bottles
Catalog number	OCS1, OCS2, OCS3-KP, V-PZ25, V-PZ30
Recommended use	Collection and storage of patient samples for use in OC-Auto testing
Manufactured for	Polymedco Cancer Diagnostic Products, LLC. 510 Furnace Dock Road Cortlandt Manor, NY 10567 www.polymedco.com
Emergency number	(800) 431-2123 or (914) 739-5400

Section 2 Hazards Identification

Hazard classification	Does not present any particular physical, health, or environmental hazard
Signal word	Not applicable
Pictogram	Not applicable
Hazard statements	Not applicable
Precautionary statements	Not applicable
Any hazards not otherwise classified	Not applicable

Section 3 Composition and Information on Ingredients

Chemical characterization	Contains no hazardous ingredients
Chemical name	HEPES
Synonyms	4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid
CAS number	7365-45-9
Concentration	50 mM

Section 4 First Aid Measures

IF IN EYES:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice / attention.
IF ON SKIN:	Wash with plenty of soap and water. If skin irritation occurs: Get medical advice / attention.
IF SWALLOWED:	Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor / physician if you feel unwell.
IF INHALED:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.

OC-Auto[®] Sampling Bottles

Section 5 Fire-Fighting Measures	
Flash point	Not applicable
Flammable limits	Not applicable
Auto-ignition temperature	Not applicable
Extinguishing media	Use extinguishing media suitable for surrounding fire
Special fire and explosion hazards	No special hazards determined
Hazardous combustion products	No special hazards determined
Protective equipment for firefighters	Self-contained breathing apparatus is recommended for firefighters

Section 6 Accident Release Measures	
Personal precautions	Wear protective clothing, gloves, and eye protection.
Emergency procedures	No special emergency procedures necessary.
Containment procedures	Contain spill to prevent migration.
Cleanup procedures	Use suitable absorbent material to soak up spill.

Section 7 Handling and Storage	
Handling and storage	Avoid inhaling, swallowing, and contact with eyes and skin.
Recommended storage conditions	2 - 30°C
Incompatibilities	Not determined

Section 8 Exposure Controls and Personal Protection	
Exposure limits:	
OSHA	Not determined
ACGIH	Not determined
Engineering controls	Normal room ventilation
Respiratory protection	Normal room ventilation
Eye protection	Safety glasses should be worn to prevent eye contact.
Skin protection	Appropriate gloves and clothing should be worn to prevent skin contact.

OC-Auto[®] Sampling Bottles

Section 9 Physical and Chemical Properties	
Appearance	Clear colorless liquid
Odor	Odorless
Odor threshold	Not determined
pH	6.2 – 6.6
Melting point / Freezing point	Approximately 0°C
Initial boiling point and boiling range	Approximately 100°C
Flash point	Not applicable
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Vapor pressure	Not determined
Vapor density	Not determined
Relative density	Not determined
Solubility	Soluble in water
Partition coefficient	Not determined
Auto-ignition temperature	Not applicable
Decomposition temperature	Not determined
Viscosity	Not determined

Section 10 Stability and Reactivity	
Stability	Stable under normal ambient temperature and pressure.
Stabilizers needed	Not applicable
Safety issues with change in physical appearance	Not determined
Hazardous reactions	Not determined
Hazardous polymerization	Will not polymerize
Incompatibilities	Not determined
Hazard decomposition products	Not determined
Conditions to avoid	Not determined

Section 11 Toxicological Information	
Information on likely routes and effects of exposure (short term / long term effects):	
Inhalation	None identified
Ingestion	None identified
Skin contact	None identified
Eye contact	None identified
Toxicity (LD50/LC50)	Not available
Sensitization	Not available
Carcinogenicity	Not available
Reproductive Toxicity	Not available
Teratogenicity	Not available
Mutagenicity	Not available

OC-Auto[®] Sampling Bottles

Section 12 Ecological Information	
Ecotoxicity	Not determined
Persistence / degradability	Not determined
Bioaccumulation potential	Not determined
Mobility in soil (Adsorption / leaching)	Not determined
Environmental fate	Not determined
Ozone layer depletion potential	Not determined
Photochemical ozone creation potential	Not determined
Endocrine disrupting potential	Not determined
Global warming potential	Not determined

Section 13 Disposal Considerations	
Disposal containers	Leak-proof container
Disposal methods	Dispose in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.
Properties that may affect disposal	Not applicable
Sewage disposal	Do not dispose of product into drains or sewers
Precautions for landfills or incineration	Not applicable

Section 14 Transport Information	
UN Number	Not regulated
UN proper shipping name	Not regulated
Transport hazard class	Not regulated
Packing group	Not regulated
Environmental hazards	None identified
Guidance on transport in bulk	No special requirements
Special precautions on transport	None identified

OC-Auto[®] Sampling Bottles

Section 15 Regulatory Information	
OSHA	This product does not meet the definition of a hazardous material under 29 CFR 1910.2000
TSCA	Listed
SARA	
302	Not applicable
311/312	No hazards
313	Below threshold reporting levels
CA Prop 65	Not listed
Canada DSL/NDSL	Not listed
WHMIS Class	Not applicable
The above information is not intended to be a comprehensive listing of regulations pertinent to the product, and the regulations listed are subject to change. The user is responsible for observing all applicable local, state, and national/federal regulations in handling of the product.	

Section 16 Other Information			
NFPA Ratings:		HMIS Ratings:	
Health	0	Health	0
Flammability	0	Flammability	0
Reactivity	0	Reactivity	0
Physical Hazards		Protective Equipment	B
Date of preparation	22 September 2014		
Last revision date	26 February 2015		
The information in this SDS is believed to be accurate and complete at the time of revision. No warranty, express or implied, is made, and Polymedco assumes no legal responsibility or liability from its use. The user of our products is responsible for observing any applicable laws and guidelines.			

SAFETY DATA SHEET



Oxivir® TB Wipes (US)
***Virucidal • Bactericidal • Fungicidal • Tuberculocidal**

Revision: 2021-03-08

Version:

Product name: Oxivir® TB Wipes (US)
SDS #: *Virucidal • Bactericidal • Fungicidal • Tuberculocidal
 MS0801269
Recommended use: • This product is intended to be used neat.
Uses advised against: Uses other than those identified are not recommended

Manufacturer, importer, supplier:
 US Headquarters
 Diversey, Inc.
 1300 Altura Rd., Suite 125
 Fort Mill, SC 29708
 Phone: 1-888-352-2249
 SDS Internet Address: <https://sds.diversey.com>

Canadian Headquarters
 Diversey Canada, Inc.
 6150 Kennedy Road Unit 3
 Mississauga, Ontario L5T 2J4
 Phone: 1-800-668-7171

Emergency telephone number: 1-800-851-7145; 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

This product is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and Canadian Hazardous Products Regulations (HPR) (WHMIS 2015-GHS).

Hazard Statements

None required.

Precautionary Statements

None required.

Health hazards not otherwise classified (HHNOC) - Not applicable

Physical hazards not otherwise classified (PHNOC) - Not applicable

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients

Ingredient(s)	CAS #	Weight %
Benzyl alcohol	100-51-6	1 - 5%
Hydrogen peroxide	7722-84-1	> 0.1 - < 1%

4. FIRST AID MEASURES

Undiluted Product:

Eyes: Rinse with plenty of water. If irritation occurs and persists, get medical attention.

Skin: No specific first aid measures are required.

Oxivir® TB Wipes (US)
***Virucidal • Bactericidal • Fungicidal •**
Tuberculocidal

Inhalation: No specific first aid measures are required.

Ingestion: IF SWALLOWED: Call a Poison Center (1-800-851-7145) or doctor/physician if you feel unwell.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed Not applicable.

5. FIRE-FIGHTING MEASURES

Specific methods: No special methods required
Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.
Specific hazards: None known.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Put on appropriate personal protective equipment (see Section 8.).
Environmental precautions and clean-up methods: Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage: Keep tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Ingredient(s)	CAS #	ACGIH	OSHA
Hydrogen peroxide	7722-84-1	1 ppm (TWA)	1 ppm (TWA) 1.4 mg/m ³ (TWA)

Undiluted Product:

Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels.

Personal Protective Equipment

It is the responsibility of the employer to determine the potential risk of exposure to hazardous chemicals for employees in the workplace in order to determine the necessity, selection, and use of personal protective equipment.

Eye protection: No personal protective equipment required under normal use conditions.
Hand protection: No personal protective equipment required under normal use conditions.
Skin and body protection: No personal protective equipment required under normal use conditions.
Respiratory protection: No personal protective equipment required under normal use conditions.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Evaporation Rate: No information available
Odor threshold: No information available.
Decomposition temperature: Not determined
Solubility: Completely Soluble
Relative Density (relative to water): 1.01
Vapor density: No information available
Vapor pressure: No information available.
Partition coefficient (n-octanol/water): No information available
Elemental Phosphorus: 0.12 % by wt.
pH: ≈ 3

Color: Clear , Colorless
Odor: Cherry Surfactant
Boiling point/range: Not determined
Autoignition temperature: No information available
Solubility in other solvents: No information available
Density: 1.01 Kg/L
Bulk density: No information available
Flash point (°F): > 200 °F > 93 °C
Viscosity: 0
VOC: 0 % *
Flammability (Solid or Gas): Not applicable

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*Virucidal • Bactericidal • Fungicidal • Tuberculocidal

Corrosion to metals: Not corrosive to metals

Sustained combustion: Not applicable

Explosion limits: - upper: Not determined - lower: Not determined

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity: Not Applicable
Stability: The product is stable
Hazardous decomposition products: None reasonably foreseeable.
Materials to avoid: Do not mix with any other product or chemical unless specified in the use directions.
Conditions to avoid: None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Skin contact, Inhalation, Eye contact

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: Unlikely to be irritant in normal use.

Eye contact: May be mildly irritating to eyes.

Ingestion: No information available.

Inhalation: No information available.

Sensitization: No known effects.

Target Organs (SE): None known

Target Organs (RE): None known

Numerical measures of toxicity

ATE - Oral (mg/kg): >5000

ATE - Dermal (mg/kg): >5000

ATE - Inhalatory, mists (mg/l): >20

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by storage or disposal.

Waste from residues / unused products (undiluted product):

This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Pesticide Storage:

Refer to product label.

Pesticide Disposal:

Refer to product label.

Container Disposal:

Oxivir® TB Wipes (US)

*Virucidal • Bactericidal • Fungicidal • Tuberculocidal

Refer to product label.

RCRA Hazard Class (undiluted product): Not Regulated.

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: The information provided below is the full transportation classification for this product. This description does not account for the package size(s) of this product, that may fall under a quantity exception, according to the applicable transportation regulations. When shipping dangerous goods, please consult with your internal, certified hazardous materials specialist to determine if any exceptions can be applied to your shipment.

DOT (Ground) Bill of Lading Description: NOT REGULATED

IMDG (Ocean) Bill of Lading Description: NOT REGULATED

15. REGULATORY INFORMATION

International Inventories at CAS# Level

TSCA All components are listed or otherwise exempt

U.S. Regulations

EPA Reg. No. : 70627-60

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

KEEP OUT OF REACH OF CHILDREN. ENVIRONMENTAL HAZARDS: This product is toxic to birds, fish and aquatic invertebrates. Caution should be used when applying indoors because pets may be at risk.

CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Hydrogen peroxide	7722-84-1	> 0.1 - < 1%		1000	

Canadian Regulations

16. OTHER INFORMATION

NFPA (National Fire Protection Association)

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 0

Flammability 0

Instability 0

Special Hazards -

Revision: 2021-03-08

Version:

Reason for revision:

Not applicable


Prepared by:

North American Regulatory Affairs

Additional advice:

• Does not contain an added fragrance

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

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2.2 : Non-flammable, non-toxic gases



Danger



SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name	: Oxygen ; Oxygen Lazer P; Medical Oxygen; Mapcon Oxygen
SDS Nr	: YPX097A . (Replaces EIGA097A, 23.02.2010.)
Chemical description	: Oxygen CAS No :7782-44-7 EC No :231-956-9 Index No :008-001-00-8
Registration-No.	: Listed in Annex IV / V REACH, exempted from registration.
Chemical formula	: O ₂

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: Industrial and professional. Perform risk assessment prior to use. Test gas/Calibration gas. Laboratory use. Shield gas for welding processes. Laser gas. Plasma gas. Combustion processes. Food applications. Medical applications. Water treatment. Use for manufacture of electronic/photovoltaic components. Contact supplier for more information on uses.
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1.3. Details of the supplier of the safety data sheet


Company identification	: Yara Praxair AS Postboks 23 Haugenstua, N-0915 Oslo, NORWAY Tel. +47 04277 E-mail: norge@yarapraxair.com
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1.4. Emergency telephone number

Emergency telephone number	: 22 59 13 00 [24 t - Giftinformasjonssentralen] 48 00 50 00 [24 t - Beredskapstelefon Yara Praxair]
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SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

Hazard Class and Category Code Regulation EC 1272/2008 (CLP)

- Physical hazards : Oxidizing gases - Category 1 - Danger - (CLP : Ox. Gas 1) - H270
Gases under pressure - Compressed gas - Warning - (CLP : Press. Gas) - H280

Classification EC 67/548 or EC 1999/45

: O; R8

2.2. Label elements

Labelling Regulation EC 1272/2008 (CLP)

- Hazard pictograms



- Hazard pictograms code : GHS03 - GHS04
- Signal word : Danger
- Hazard statements : H270 - May cause or intensify fire; oxidiser.
H280 - Contains gas under pressure; may explode if heated.
- Precautionary statements
 - Prevention : P244 - Keep valves and fittings free from oil and grease
P220 - Keep away from combustible materials.
 - Response : P370+P376 - In case of fire : Stop leak if safe to do so.
 - Storage : P403 - Store in a well-ventilated place.

2.3. Other hazards

: None.

SECTION 3. Composition/information on ingredients

3.1. Substance / 3.2. Mixture

Substance.

Substance name	Contents	CAS No EC No Index No Registration no	Classification(DSD)	Classification(CLP)
Oxygen	: 100 %	7782-44-7 231-956-9 008-001-00-8 * 1	O; R8	Ox. Gas 1 (H270) Press. Gas Compressed (H280)

Contains no other components or impurities which will influence the classification of the product.

* 1: Listed in Annex IV / V REACH, exempted from registration.

* 2: Registration deadline not expired.

* 3: Registration not required: Substance manufactured or imported < 1t/y.

Full text of R-phrases see section 16. Full text of H-statements see section 16.

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SECTION 4. First aid measures

4.1. Description of first aid measures

- Inhalation : Remove victim to uncontaminated area.
- Skin contact : Adverse effects not expected from this product.
- Eye contact : Adverse effects not expected from this product.
- Ingestion : Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

- : Continuous inhalation of concentrations higher than 75% may cause nausea, dizziness, respiratory difficulty and convulsion.

4.3. Indication of any immediate medical attention and special treatment needed

- : None.

SECTION 5. Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray or fog.
- Unsuitable extinguishing media : Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

- Specific hazards : Exposure to fire may cause containers to rupture/explode. Supports combustion.
- Hazardous combustion products : None.

5.3. Advice for fire-fighters

- Specific methods : Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems. If possible, stop flow of product. Use water spray or fog to knock down fire fumes if possible.
- Special protective equipment for fire fighters : Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters. Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask. Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- : Try to stop release. Ensure adequate air ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Monitor concentration of released product. Eliminate ignition sources. Evacuate area.

6.2. Environmental precautions


- : Try to stop release.

6.3. Methods and material for containment and cleaning up

- : Ventilate area.

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SECTION 6. Accidental release measures (continued)

6.4. Reference to other sections

: See also sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Safe use of the product

: Only experienced and properly instructed persons should handle gases under pressure. The substance must be handled in accordance with good industrial hygiene and safety procedures.
 Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
 Use no oil or grease.
 Do not smoke while handling product.
 Keep equipment free from oil and grease.
 Use only oxygen approved lubricants and oxygen approved sealings.
 Use only with equipment cleaned for oxygen service and rated for cylinder pressure.
 Ensure the complete gas system was (or is regularly) checked for leaks before use.
 Consider pressure relief device(s) in gas installations.

Safe handling of the gas receptacle

: Refer to supplier's container handling instructions.
 Suck back of water into the container must be prevented.
 Open valve slowly to avoid pressure shock.
 Do not allow backfeed into the container.
 Protect cylinders from physical damage; do not drag, roll, slide or drop.
 When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.
 Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
 If user experiences any difficulty operating cylinder valve discontinue use and contact supplier.
 Never attempt to repair or modify container valves or safety relief devices.
 Damaged valves should be reported immediately to the supplier.
 Keep container valve outlets clean and free from contaminants particularly oil and water.
 Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.
 Close container valve after each use and when empty, even if still connected to equipment.
 Never attempt to transfer gases from one cylinder/container to another.
 Never use direct flame or electrical heating devices to raise the pressure of a container.
 Do not remove or deface labels provided by the supplier for the identification of the cylinder contents.

7.2. Conditions for safe storage, including any incompatibilities

: Keep container below 50°C in a well ventilated place.
 Segregate from flammable gases and other flammable materials in store. Containers should be stored in the vertical position and properly secured to prevent toppling. Stored containers should be periodically checked for general condition and leakage. Container valve guards or caps should be in place. Store containers in location free from fire risk and away from sources of heat and ignition.
 Containers should not be stored in conditions likely to encourage corrosion. Keep away from combustible materials.

7.3. Specific end use(s)


: None.

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SECTION 8. Exposure controls/personal protection

8.1. Control parameters

DNEL: Derived no effect level (Workers)

: No data available.

PNEC: Predicted no effect concentration

: No data available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

: Systems under pressure should be regularly checked for leakages.
Avoid oxygen rich (>23,5%) atmospheres.
Gas detectors should be used when oxidising gases may be released.
Provide adequate general and local exhaust ventilation.
Consider work permit system e.g. for maintenance activities.

8.2.2. Individual protection measures, e.g. personal protective equipment

: PPE compliant to the recommended EN/ISO standards should be selected.
A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk.
The following recommendations should be considered:
Wear suitable hand, body and head protection. Wear goggles with suitable filter lenses when use is cutting/welding.

• Eye/face protection

: Wear safety glasses with side shields.
Standard EN 166 - Personal eye-protection.

• Skin protection

- Hand protection

: Wear working gloves when handling gas containers.
Standard EN 388 - Protective gloves against mechanical risk.

- Other

: Wear safety shoes while handling containers.
Standard EN ISO 20345 - Personal protective equipment - Safety footwear.
Standard EN ISO 14116 - Limited flame spread materials.
Consider the use of flame resistant safety clothing.

• Respiratory protection

: None necessary.

• Thermal hazards

: None necessary.

8.2.3. Environmental exposure controls

: None necessary.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state at 20°C / 101.3kPa : Gas.

Colour : Colourless.

Odour : No odour warning properties.

Odour threshold : Odour threshold is subjective and inadequate to warn for overexposure.

pH value : Not applicable.

Molar mass [g/mol] : 32

Melting point [°C] : -219

Boiling point [°C] : -183

Critical temperature [°C] : -118

Flash point [°C] : Not applicable for gases and gas-mixtures.

Evaporation rate (ether=1) : Not applicable for gases and gas-mixtures.


Flammability range [vol% in air] : Non flammable.

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SECTION 9. Physical and chemical properties (continued)

Vapour pressure [20°C]	: Not applicable.
Relative density, gas (air=1)	: 1.1
Relative density, liquid (water=1)	: 1.1
Solubility in water [mg/l]	: 39
Partition coefficient n-octanol/water [log Kow]	: Not applicable for inorganic gases.
Auto-ignition temperature [°C]	: Not applicable.
Viscosity at 20°C [mPa.s]	: Not applicable.
Explosive Properties	: Not applicable.
Oxidising Properties	: Oxidiser.
- Coefficient of oxygen equivalency (Ci)	: 1

9.2. Other information

Other data	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.
------------	--

SECTION 10. Stability and reactivity

10.1. Reactivity

: No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

: Stable under normal conditions.

10.3. Possibility of hazardous reactions

: Violently oxidises organic material.

10.4. Conditions to avoid

: None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

: Consider the potential toxicity hazard due to the presence of chlorinated or fluorinated polymers in high pressure (> 30 bar) oxygen lines in case of combustion.
May react violently with combustible materials.
May react violently with reducing agents.
Keep equipment free from oil and grease.
For additional information on compatibility refer to ISO 11114.

10.6. Hazardous decomposition products

: None.

SECTION 11. Toxicological information

11.1. Information on toxicological effects


Acute toxicity	: No known toxicological effects from this product.
Skin corrosion/irritation	: No known effects from this product.
Serious eye damage/irritation	: No known effects from this product.
Respiratory or skin sensitisation	: No known effects from this product.
Carcinogenicity	: No known effects from this product.
Germ cell mutagenicity	: No known effects from this product.

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SECTION 11. Toxicological information (continued)

Reproductive toxicity	: No known effects from this product.
STOT-single exposure	: No known effects from this product.
STOT-repeated exposure	: No known effects from this product.
Aspiration hazard	: Not applicable for gases and gas-mixtures.

SECTION 12. Ecological information

12.1. Toxicity

: No ecological damage caused by this product.

12.2. Persistence and degradability

: No ecological damage caused by this product.

12.3. Bioaccumulative potential

: No ecological damage caused by this product.

12.4. Mobility in soil

: No ecological damage caused by this product.

12.5. Results of PBT and vPvB assessment

: Not classified as PBT or vPvB.

12.6. Other adverse effects

Effect on ozone layer	: None.
Effect on the global warming	: No known effects from this product.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

: May be vented to atmosphere in a well ventilated place.
Do not discharge into any place where its accumulation could be dangerous.
Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at <http://www.eiga.org> for more guidance on suitable disposal methods.

List of hazardous waste codes (from Commission Decision 2001/118/EC) : 16 05 04: Gases in pressure containers (including halons) containing dangerous substances.

13.2. Additional information

: None.

SECTION 14. Transport information

UN number : 1072
Labelling ADR, IMDG, IATA




: 5.1 : Oxidizing substances
2.2 : Non-flammable, non-toxic gases

Land transport (ADR/RID)

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SECTION 14. Transport information (continued)

H.I. nr : 25
 UN proper shipping name : OXYGEN, COMPRESSED
 Transport hazard class(es) : 2
 Classification code : 1 O
 Packing group : -
 Packing Instruction(s) : P200
 Tunnel Restriction : E : Passage forbidden through tunnels of category E.
 Environmental hazards : None.

Sea transport (IMDG)

Proper shipping name : OXYGEN, COMPRESSED
 Class : 2.2
 Emergency Schedule (EmS) - Fire : F-C
 Emergency Schedule (EmS) - Spillage : S-W
 Packing instruction : P200
 IMDG-Marine pollutant : No

Air transport (ICAO-TI / IATA-DGR)

Proper shipping name (IATA) : OXYGEN, COMPRESSED
 Class : 2.2
 Passenger and Cargo Aircraft : Allowed.
 Packing instruction - Passenger and Cargo Aircraft : 200
 Cargo Aircraft only : Allowed.
 Packing instruction - Cargo Aircraft only : 200

Special precautions for user

: Avoid transport on vehicles where the load space is not separated from the driver's compartment.
 Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.
 Before transporting product containers:
 - Ensure that containers are firmly secured.
 - Ensure cylinder valve is closed and not leaking.
 - Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
 - Ensure valve protection device (where provided) is correctly fitted.
 - Ensure there is adequate ventilation.
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Restrictions on use : None.
 Seveso directive 96/82/EC : Listed.


National legislation

National legislation : Ensure all national/local regulations are observed.

15.2. Chemical safety assessment

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SECTION 15. Regulatory information (continued)

: A CSA does not need to be carried out for this product.

SECTION 16. Other information

Indication of changes	: Revised safety data sheet in accordance with commission regulation (EU) No 453/2010.
Training advice	: Ensure operators understand the hazard of oxygen enrichment.
List of full text of R-phrases in section 3.	: R8 : Contact with combustible material may cause fire.
List of full text of H-statements in section 3.	: H270 - May cause or intensify fire; oxidiser. H280 - Contains gas under pressure; may explode if heated.
Further information	: This Safety Data Sheet has been established in accordance with the applicable European Union legislation.
DISCLAIMER OF LIABILITY	: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

End of document

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SAFETY DATA SHEET

PRODUCT NAME: PNEUMOVAX™ 23

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Revision 1-Apr-2010

1. Product and Company Identification

<u>Manufactured/Supplied by</u>	Merck Sharp & Dohme Corp. A wholly owned subsidiary of Merck & Co., Inc. One Merck Drive Whitehouse Station, NJ 08889-0100 (908) 423-1000 (General Information Only)
<u>Label Name</u>	Emergency Telephone Number: 1-908-423-6000 (24/7/365) English Only PNEUMOVAX™ 23
<u>Chemical Name</u>	Pneumococcal vaccine polyvalent
<u>Synonyms</u>	Not available
<u>Material Product Number</u>	4739 - One 5-dose vial of liquid vaccine. 4943 - Single-dose vial of liquid vaccine in a box of 10 single-dose vials. NDC 0006-4739-00 NDC 0006-4943-00
<u>Intended Use</u>	Vaccine indicated for vaccination against pneumococcal disease caused by those pneumococcal types included in the vaccine.

2. Composition/Information on Ingredients

<u>Component</u>	<u>Molecular Formula</u>	<u>Molecular weight</u>	<u>CAS Number</u>	<u>Percent (%)</u>
Pneumococcal Types 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F	Not available	Not available	Not available	<1
Inactive ingredients	- - -	Not available	- - -	99

EC Label Not classified.

3. Hazards Identification

<u>Appearance</u>	Clear, colorless solution
<u>Label Text</u>	CAUTION! VACCINE
<u>Emergency Overview</u>	No specific hazard with intact vials. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
<u>Potential Health Effects</u>	See Section 11 for detailed information.

*** Continued on next page ***

4. First Aid MeasuresEye Contact

None required with normal handling of finished product.

In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

Skin Contact

None required with normal handling of finished product.

Wash with soap and water. Get medical attention if irritation occurs.

Inhalation

None required with normal handling of finished product.

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion

None required with normal handling of finished product.

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Notes to physician

Treat supportively and symptomatically.

For additional guidance refer to the current prescribing information or the local poison control center.

5. Fire Fighting MeasuresFlash Point

Not applicable

Flammable Limits (% in air)

Not applicable

Autoignition Temperature

Not available

Oxidizing Properties

Not available

Combustibility Information

Not available

Dust Explosivity Information

Not applicable

Shock Sensitivity

Not applicable

Fire/Explosion Hazards

None known.

Special Fire Procedures

No special procedures.

Extinguishing Media

In case of fire, use water spray (fog), foam, dry chemical, or CO₂.

Hazardous Decomposition Products

None known.

6. Accidental Release MeasuresPersonal Precautions

See Section 8 for Personal Protective Equipment Contact emergency personnel. Keep unnecessary personnel away. Follow all fire fighting procedures (Section 5).

Methods for cleaning up

Contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. **See Section 13 for Waste Disposal Information**

7. Handling and StorageHandling

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage

Keep container tightly closed. Store vials at 2-8°C (35.6-46.4°F)

8. Exposure Controls/Personal ProtectionExposure Guidelines

<u>Component</u>	<u>OSHA Permissible Exposure Limit (PEL)</u>	<u>ACGIH Threshold Limit Value (TLV)</u>	<u>Merck Exposure Control Limit (ECL) or PB-ECL Category</u>
Pneumococcal Types 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F	Not established	Not established	10 ug/m ³ (8-hr TWA)
Inactive ingredients	Not available	Not available	Not established

ADI = 100 ug/day

Wipe Test Criteria = 100 ug/cm²

Engineering Controls

Adequate ventilation should be provided if there is risk of aerosol formation.

Personal Protective EquipmentEye/Face Protection

None required when handling sealed vials.

Safety glasses with side shields should be worn when handling bulk liquid formulation or filling vials.

Skin Protection

None required when handling sealed vials.

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.

Respiratory Protection

No respiratory protection required when handling bulk liquid formulation or sealed vials.

As an adjunct to engineering controls, use an approved, properly fitted, powered air purifying respirator, or respirator of equivalent or greater protection if the potential exists for exposure to airborne aerosols.

Additional Protective Equipment

Work uniform or laboratory coat.

9. Physical and Chemical Properties

<u>Appearance</u>	Clear, colorless solution
<u>Odor/Threshold Limit</u>	Not available
<u>pH</u>	Not available
<u>Boiling Point</u>	Not available
<u>Melting Point</u>	Not available
<u>Flash point</u>	Not applicable
<u>Flammable Limits (% in air)</u>	Not applicable
<u>Autoignition Temperature</u>	Not available
<u>Solubility</u>	Not available
<u>Partition Coefficient</u>	Not available
<u>Specific Gravity</u>	Not available
<u>Vapor Density</u>	Not available
<u>Vapor Pressure</u>	Not available
<u>Volatility Component</u>	Not available

10. Stability and Reactivity

<u>Stability</u>	Not available
<u>Conditions to Avoid</u>	Not available
<u>Incompatibility</u>	Not available
<u>Hazardous Polymerization</u>	Not available
<u>Hazardous Decomposition Products</u>	None known.

11. Toxicological Information

<u>Routes of Entry</u>	Ingestion:	No.
	Inhalation:	Yes
	Skin Contact:	No.

Toxicity Data

<u>Component</u>	<u>Test</u>	<u>Species</u>	<u>Route</u>	<u>Result</u>
Pneumococcal Types 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F	Not available	Not available	Not available	Not available
Inactive ingredients	Not available	Not available	Not available	Not available

Effects of Acute Exposure

<u>Eye contact</u>	Non-irritating to the eyes.
<u>Skin contact</u>	Not available
<u>Inhalation</u>	Not available
<u>Ingestion</u>	Not available

Effects of Chronic Exposure

Mutagenicity, carcinogenicity, developmental and reproductive toxicity studies have not been conducted with PNEUMOVAX 23. Repeat-dose, developmental, reproductive and genotoxicity studies have not yet been performed.

The most common adverse experiences reported in clinical trials were local reactions at the injection site (including soreness, warmth, erythema, swelling, and induration) and fever (<102°F). In postmarketing experience, injection-site cellulitis-like reactions were reported rarely. Caution and appropriate care should be exercised in administering PNEUMOVAX 23 to individuals with severely compromised cardiovascular and/or pulmonary function in whom a systemic reaction would pose a significant risk.

Carcinogen Designation

Not listed as a carcinogen by OSHA, NTP or IARC.

Medical Conditions Aggravated by Overexposure:

Not available

12. Ecological InformationEnvironmental Effects

Not available

Ecotoxicity DataComponentSpeciesPeriodResult

Pneumococcal Types
1, 2, 3, 4, 5, 6B, 7F, 8,
9N, 9V, 10A, 11A, 12F,
14, 15B, 17F, 18C, 19A,
19F, 20, 22F, 23F
Inactive ingredients

Not available

Not available

Not available

Not available

Not available

Not available

Environmental Fate

Not available

13. Disposal ConsiderationsWaste Disposal Information

Avoid contact of spilled material and runoff with soil and surface waterways. Dispose of or treat all spills residues including contaminated soils following all federal, state, or local regulations.

14. Transport InformationShipping DescriptionU.S. DOT

Not regulated.

IATA/ICAO

Not regulated.

IMO

Not regulated.

ADR/RID

Not regulated.

15. Regulatory InformationU.S. Federal Regulations

Hazardous per OSHA Hazard Communication Standard criteria (29 CFR 1910.1200).

State Regulations

Not available

International Regulations

Not classified as Dangerous according to the Dangerous Substances Directive (DSD).

16. Other Information

Revisions: Material Product Number

Revision:

4/1/2010.

Date of Preparation

10-Apr-2007

Date of Previous Issue

10-Apr-2007

Validation Date

4/1/2010.

MSDS Coordinator:

1-908-423-7903
Merck Sharp & Dohme Corp.
A wholly owned subsidiary of Merck & Co., Inc.
One Merck Drive
Whitehouse Station, NJ 08889-0100

Disclaimer:

While this information and recommendations set forth are believed to be accurate as of the date hereof, MERCK & CO, INC. makes no warranty with respect hereto and disclaims all liability from reliance thereon.

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

Promethazine HCl Injection, USP**hikma.**

Section 1. Identification

GHS product identifier	: Promethazine HCl Injection, USP
Synonyms	: Phenergan® (Promethazine HCl) Injection
Product code	: Not available.
Chemical family	: Anticholinergic Agent. Antihistaminic Agent. Antiemetic. Sedative.
Product type	: Regulated prescription drug.
Container information	: 1 mL vials or ampuls.
Identified uses	: Pharmaceutical.
Supplier's details	: Hikma Pharmaceuticals USA Inc. 246 Industrial Way West Eatontown, New Jersey (NJ) 07724
Emergency telephone number (with hours of operation)	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887 24/7

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms**Signal word**

: Warning

Hazard statements: May cause an allergic skin reaction.
Harmful to aquatic life with long lasting effects.

Precautionary statements

General

: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention

: Wear protective gloves. Avoid release to the environment. Avoid breathing vapor. Contaminated work clothing should not be allowed out of the workplace.

Response

: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage

: Not applicable.

hikma.**Promethazine HCl Injection, USP****Section 2. Hazards identification**

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Phenergan® (Promethazine HCl) Injection

CAS number/other identifiers

CAS number : Not applicable.

Product code : Not available.

Ingredient name	%	CAS number
Water	60 - 100	7732-18-5
Promethazine hydrochloride	1 - 5	58-33-3
Phenol	0.1 - 1	108-95-2
Disodium dihydrogen ethylenediaminetetraacetate	0 - 0.1	139-33-3
Sodium metabisulphite	0 - 0.1	7681-57-4
Calcium chloride	0 - 0.1	10043-52-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures**Description of necessary first aid measures**

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures**Extinguishing media**

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
Sulfur oxides
halogenated compounds

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : No special measures are required.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage**Precautions for safe handling**

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Aqueous solution.]

Color : Colorless.

Odor : Not available.

Odor threshold : Not available.

pH : 4 to 5.5

Melting point : Not available.

Boiling point : Not available.

Flash point : Not available.

Evaporation rate : Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: Not available.
Solubility	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Promethazine hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Section 11. Toxicological information

Information on the likely routes of exposure : Dermal contact. Eye contact. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	13333.3 mg/kg
Inhalation (vapors)	293.3 mg/L

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

AERG : Not applicable.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



Promethazine HCl Injection, USP

Section 14. Transport information

Transport in bulk according : Not available.
to Annex II of MARPOL
73/78 and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) PAIR: Sodium Metabisulphite
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: Phenol
Clean Water Act (CWA) 311: Phenol

Clean Air Act Section 112 : Not listed
(b) Hazardous Air
Pollutants (HAPs)

Clean Air Act Section 602 : Not listed
Class I Substances

Clean Air Act Section 602 : Not listed
Class II Substances

DEA List I Chemicals : Not listed
(Precursor Chemicals)

DEA List II Chemicals : Not listed
(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Phenol	0.1 - 1	Yes.	-	-	-	-

SARA 304 RQ : Not applicable.

SARA 311/312

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Promethazine hydrochloride	1 - 5	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

No products were found.

International regulations

Section 15. Regulatory information

International lists	: Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): Not determined. Japan inventory: All components are listed or exempted. Korea inventory: All components are listed or exempted. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined.
Chemical Weapons Convention List Schedule I Chemicals	: Not listed
Chemical Weapons Convention List Schedule II Chemicals	: Not listed
Chemical Weapons Convention List Schedule III Chemicals	: Not listed

Section 16. Other information

History

Revision date mm/dd/yyyy	: 12/15/2018
Version	: 2
Prepared by	: KMK Regulatory Services Inc.
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET


PURELL® Advanced Hand Sanitizer E3 Rated Gel

Version	Revision Date:	MSDS Number:	Date of last issue: 12/19/2014
1.3	02/10/2015	36432-00004	Date of first issue: 12/11/2014

SECTION 1. IDENTIFICATION

Product name : PURELL® Advanced Hand Sanitizer E3 Rated Gel

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron OH 44311

Telephone : 1 (330) 255-6000

Emergency telephone : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 3

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.

SAFETY DATA SHEET


PURELL® Advanced Hand Sanitizer E3 Rated Gel

Version 1.3	Revision Date: 02/10/2015	MSDS Number: 36432-00004	Date of last issue: 12/19/2014 Date of first issue: 12/11/2014
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H319 Causes serious eye irritation.

Precautionary Statements

: **Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P233 Keep container tightly closed.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P264 Wash skin thoroughly after handling.
 P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Vapors may form explosive mixture with air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Ethanol	64-17-5	>= 50 - < 70
Propan-2-ol	67-63-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice

: In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.

If inhaled

: If inhaled, remove to fresh air.
 Get medical attention if symptoms occur.

In case of skin contact

: Wash with water and soap as a precaution.
 Get medical attention if symptoms occur.

SAFETY DATA SHEET


PURELL® Advanced Hand Sanitizer E3 Rated Gel

Version 1.3	Revision Date: 02/10/2015	MSDS Number: 36432-00004	Date of last issue: 12/19/2014 Date of first issue: 12/11/2014
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In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	: Causes serious eye irritation.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
Notes to physician	: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO ₂)
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire fighting	: Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion products	: Carbon oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions,	: Remove all sources of ignition.
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protective equipment and emergency procedures	Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions	: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	: Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapors/mists with a water spray jet. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures	: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	: Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation.
Advice on safe handling	: Do not breathe vapors or spray mist. Do not swallow. Do not get in eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice. Non-sparking tools should be used. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	: Keep in properly labeled containers. Keep tightly closed.

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Keep in a cool, well-ventilated place.
 Store in accordance with the particular national regulations.
 Keep away from heat and sources of ignition.

Materials to avoid : Do not store with the following product types:
 Strong oxidizing agents
 Organic peroxides
 Flammable solids
 Pyrophoric liquids
 Pyrophoric solids
 Self-heating substances and mixtures
 Substances and mixtures which in contact with water emit flammable gases
 Explosives
 Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m ³	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m ³	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		ST	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z-1

Biological occupational exposure limits

Ingredients	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentratio n	Basis
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of work- week	40 mg/l	ACGIH BEI

Engineering measures : Minimize workplace exposure concentrations.
 Use only in an area equipped with explosion proof exhaust ventilation.
 Use with local exhaust ventilation.

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Personal protective equipment

- | | | |
|--------------------------|---|---|
| Respiratory protection | : | General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection. |
| Hand protection | | |
| Material | : | Impervious gloves |
| Material | : | Flame retardant gloves |
| Remarks | : | Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. |
| Eye protection | : | Wear the following personal protective equipment:
Safety goggles |
| Skin and body protection | : | Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc). |
| Hygiene measures | : | Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- | | | |
|------------|---|--------------|
| Appearance | : | liquid |
| Color | : | clear |
| Odor | : | alcohol-like |

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Odor Threshold	: No data available
pH	: 6.5 - 8.5
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: 24 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Density	: 0.88 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Autoignition temperature	: No data available
Decomposition temperature	: The substance or mixture is not classified self-reactive.
Viscosity	
Viscosity, kinematic	: 6,000 - 17,000 mm ² /s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Flammable liquid and vapor. Vapors may form explosive mixture with air. Can react with strong oxidizing agents.

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Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
---------------------	--

Ingredients:
Ethanol:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 124.7 mg/l Exposure time: 4 h Test atmosphere: vapor

Propan-2-ol:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 72.6 mg/l Exposure time: 4 h Test atmosphere: vapor
Acute dermal toxicity	: LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation

Ingredients:
Ethanol:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

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Propan-2-ol:

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Ingredients:
Ethanol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Method: OECD Test Guideline 405

Propan-2-ol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitization.

Ingredients:
Ethanol:

Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse

Result: negative

Propan-2-ol:

Test Type: Buehler Test

Routes of exposure: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:
Ethanol:

Genotoxicity in vitro	:	Test Type: In vitro mammalian cell gene mutation test
		Result: negative

Genotoxicity in vivo	:	Test Type: Rodent dominant lethal test (germ cell) (in vivo)
		Species: Mouse
		Application Route: Ingestion
		Result: negative

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Propan-2-ol:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative

Carcinogenicity

Not classified based on available information.

Ingredients:
Propan-2-ol:

Species: Rat
Application Route: inhalation (vapor)
Exposure time: 104 weeks
Method: OECD Test Guideline 451
Result: negative

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Ingredients:
Ethanol:

Effects on fertility	: Test Type: Two-generation reproduction toxicity study Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 416 Result: negative
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Propan-2-ol:

Effects on fertility	: Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative
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Effects on fetal development	: Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion
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Result: negative

STOT-single exposure

Not classified based on available information.

Ingredients:**Propan-2-ol:**

Assessment: May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity**Ingredients:****Ethanol:**

Species: Rat

NOAEL: 2,400 mg/kg

Application Route: Ingestion

Exposure time: 2 y

Propan-2-ol:

Species: Rat

NOAEL: 5000 ppm

Application Route: inhalation (vapor)

Exposure time: 104 w

Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION
Ecotoxicity**Ingredients:****Ethanol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 9.6 mg/l
Exposure time: 9 d

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Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l
Exposure time: 0.25 h

Propan-2-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 24 h

Toxicity to algae : ErC50 (Scenedesmus quadricauda (Green algae)): > 1,800 mg/l
Exposure time: 8 d

Toxicity to bacteria : EC50 (Pseudomonas putida): > 1,050 mg/l
Exposure time: 16 h

Persistence and degradability
Ingredients:
Ethanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

Propan-2-ol:

Biodegradability : Result: rapidly degradable

Bioaccumulative potential
Ingredients:
Ethanol:

Partition coefficient: n-octanol/water : log Pow: -0.35

Propan-2-ol:

Partition coefficient: n-octanol/water : log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

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Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION
International Regulation
UNRTDG

UN number	: UN 1987
Proper shipping name	: ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Labels	: 3

IATA-DGR

UN/ID No.	: UN 1987
Proper shipping name	: Alcohols, n.o.s. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Labels	: Flammable Liquids
Packing instruction (cargo aircraft)	: 366
Packing instruction (passenger aircraft)	: 355

IMDG-Code

UN number	: UN 1987
Proper shipping name	: ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Labels	: 3
EmS Code	: F-E, S-D
Marine pollutant	: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation
49 CFR

UN/ID/NA number	: UN 1987
Proper shipping name	: ALCOHOLS, N.O.S.
Class	: 3
Packing group	: III
Labels	: FLAMMABLE LIQUID
ERG Code	: 127

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Marine pollutant : no

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Propan-2-ol	67-63-0	3.4086 %
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US State Regulations
Pennsylvania Right To Know

Ethanol	64-17-5	50 - 70 %
Water	7732-18-5	30 - 50 %
Propan-2-ol	67-63-0	1 - 5 %

New Jersey Right To Know

Ethanol	64-17-5	50 - 70 %
Water	7732-18-5	30 - 50 %
Propan-2-ol	67-63-0	1 - 5 %

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

AICS : All ingredients listed or exempt.

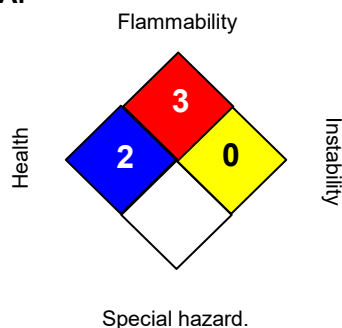
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA)

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SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	: ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	: 8-hour, time-weighted average
ACGIH / STEL	: Short-term exposure limit
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA	: 8-hour time weighted average
Sources of key data used to compile the Material Safety Data Sheet	: Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/
Revision Date	: 02/10/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8



SAFETY DATA SHEET

1. Identification

Product identifier	Safetec® Triple Antibiotic Ointment
Other means of identification	Not available.
Recommended use	Not available.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Manufacturer:	Safetec of America, Inc. 887 Kensington Avenue Buffalo, NY 14215 1-716-895-1822
Company Telephone:	1-716-895-1822
E-mail Address:	www.safetec.com
Emergency Telephone:	1-800-255-3924
Supplier	Refer to Manufacturer

2. Hazard(s) identification

Physical hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.
Health hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.
Environmental hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.
OSHA defined hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.

Label elements

Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	None required according to OSHA Hazcom 2012.
Response	None required according to OSHA Hazcom 2012.
Storage	None required according to OSHA Hazcom 2012.
Disposal	None required according to OSHA Hazcom 2012.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Bacitracin Zinc USP		1405-89-6	Proprietary
Neomycin Sulfate USP		1405-10-3	Proprietary
Petrolatum USP		8009-03-8	Proprietary
Polymyxin B Sulfate		1405-20-5	Proprietary

4. First-aid measures

Inhalation	If symptoms develop move victim to fresh air. Get medical attention if symptoms persist.
Skin contact	Wash off with warm water and soap. Get medical attention if symptoms occur.
Eye contact	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Ingestion	Seek medical advice.

Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media Alcohol foam. Dry chemicals. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Thermal decomposition or combustion may liberate toxic gases or fumes.

Special protective equipment and precautions for firefighters None known.

Fire fighting equipment/instructions Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

General fire hazards No unusual fire or explosion hazards noted.

Hazardous combustion products Carbon oxides.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Absorb spill with vermiculite or other inert material, then place in a sealed container for chemical waste.

Large Spills: Flush with plenty of water. Prevent entry into waterways, sewer, basements or confined areas. Dike for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Use only with adequate ventilation. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Keep container tightly closed. Keep cool. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Petrolatum USP (CAS 8009-03-8)	PEL	5 mg/m ³	Mist.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Petrolatum USP (CAS 8009-03-8)	TWA	5 mg/m ³	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Petrolatum USP (CAS 8009-03-8)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Chemical resistant gloves recommended.
Other	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health or safety professional or manufacturer for specific information.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Contact health and safety professional or manufacturer for specific information.
Thermal hazards	Not available.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Ointment.
Physical state	Liquid.
Form	Gel.
Color	White to off-white.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 199.9 °F (> 93.3 °C) Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Specific gravity	0.83

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

Conditions to avoid	High temperatures.
Incompatible materials	Strong oxidizing agents. Acids.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	No harmful effects expected in amounts likely to be ingested by accident.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity	No adverse effects are expected.
Skin corrosion/irritation	This product is not classified as a skin corrosive or irritant.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	This product is not expected to cause respiratory sensitization.
Skin sensitizer	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive effects.
Specific target organ toxicity - single exposure	Not classified as a specific target organ toxicity -single exposure.
Specific target organ toxicity - repeated exposure	Not classified as a specific target organ toxicity -repeated exposure.
Aspiration toxicity	Not expected to be an aspiration hazard.

12. Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Petrolatum USP (CAS 8009-03-8)

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Petrolatum USP (CAS 8009-03-8)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Neomycin Sulfate USP (CAS 1405-10-3)

Listed: October 1, 1992

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 01-19-2015**Version #** 01**Disclaimer** Prepared by: ICC The Compliance Center Inc. 1-888-442-9628
<http://www.thecompliancecenter.com>**Disclaimer**

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by / obtained from and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc. and expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and

Bibliography

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices (2014)
Canadian Centre for Occupational Health and Safety, CCIInfoWeb Databases, 2014
(Chempendium, RTECs, HSDB, INCHEM)
European Chemicals Bureau, Existing Chemicals Work Area, EINECS Information System, 2014.
Material Safety Data Sheet from manufacturer.
OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2014.



SAFETY DATA SHEET



1. Product and Company Identification

Product identifier	Sani-Cloth HB Germicidal Disposable Wipe	SDS0042
Other means of identification	Not available	
Recommended use	Hard, Nonporous Surface Disinfectant	
Recommended restrictions	For Professional and Hospital Use	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	Professional Disposables International, Inc.	
Address	Two Nice-Pak Park, Orangeburg, NY 10962-1376	
Telephone	1-845-365-1700 (M-F 9am - 5pm)	
Emergency phone number	1-800-999-6423	

2. Hazards Identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not determined.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Benzyl-C12-18-alkyldimethyl ammonium chlorides		68391-01-5	0.07
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]di methyl, chlorides		85409-23-0	0.07

4. First Aid Measures

Inhalation	Not a normal route of exposure.
Skin contact	If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat patient symptomatically.
General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes, skin and clothing. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire-fighting equipment/instructions	In the event of fire, cool product with water spray.
Specific methods	Cool product exposed to flames with water until well after the fire is out.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Prevent entry into waterways, sewers or confined areas. Pick up and discard towel. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling	Use good industrial hygiene practices in handling this material. Do not reuse towelette. Do not reuse the empty container. When using do not eat or drink.
Conditions for safe storage, including any incompatibilities	Store in a closed container away from incompatible materials. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	This material does not have established exposure limits.
Appropriate engineering controls	Ensure adequate ventilation.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear gear as deemed necessary. Follow label directions.
Skin protection	
Hand protection	Wear as deemed necessary, follow label directions.
Other	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Washing with soap and water after use is recommended as good hygienic practice to prevent possible eye irritation from hand contact. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Liquid saturated on wipe
Physical state	Solid.
Form	Liquid saturated on wipe
Color	White
Odor	Mild quat
Odor threshold	Not available.
pH	10.75 (liquid)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	1.0027 g/mL (liquid)
Partition coefficient (n-octanol/water)	Not available.
Flash point	> 212.0 °F (> 100.0 °C) Tag Closed Cup (Liquid)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Wipe is not soluble
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	May react with incompatible materials.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid temperatures exceeding the flash point. Do not mix with other chemicals.
Incompatible materials	Contact with incompatible materials. Acids. Oxidizers. Caustics.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Chloride compounds Ammonia.

11. Toxicological Information

Information on likely routes of exposure

Ingestion	Not applicable under normal conditions of use.
Inhalation	Health injuries are not known or expected under normal use.
Skin contact	Prolonged skin contact may cause skin irritation.
Eye contact	Health injuries are not known or expected under normal use.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling of the eyes, and blurred vision. Symptoms may include redness, drying, defatting and cracking of the skin. Symptoms may include stomach distress, nausea or vomiting.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Benzyl-C12-18-alkyldimethyl ammonium chlorides (CAS 68391-01-5)		
Acute		
<i>Dermal</i>		
LD50	Rat	2000 mg/kg
		1420 mg/kg
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Mouse	150 mg/kg
	Rat	240 mg/kg
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides (CAS 85409-23-0)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	300 - 2000 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	Non-hazardous by OSHA criteria.	
Carcinogenicity	Non-hazardous by OSHA criteria.	
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.	
Reproductive toxicity	Non-hazardous by OSHA criteria.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not classified.	
Chronic effects	Non-hazardous by OSHA criteria.	
Further information	This product has no known adverse effect on human health.	

12. Ecological Information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. See below
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general	Not available.

Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
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13. Disposal Considerations

Disposal instructions	Dispose of used towelette in trash. Do not flush in toilet.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	This product is not a hazardous waste.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty packaging may be disposed in trash.

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	<p>This product is NOT known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.</p> <p>This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.</p> <p>PRECAUTIONARY STATEMENTS: Hazard to humans and domestic animals. CAUTION: Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or tobacco. Remove contaminated clothing and wash before reuse.</p> <p>EPA Reg. # 61178-4-9480 EPA Est. # 9480-NY-1.</p> <p>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.</p> <p>CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.</p> <p>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed.</p> <p>Superfund Amendments and Reauthorization Act of 1986 (SARA)</p> <table> <tr> <td>Hazard categories</td><td> Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No </td></tr> <tr> <td>SARA 302 Extremely hazardous substance</td><td>No</td></tr> <tr> <td>SARA 311/312 Hazardous chemical</td><td>No</td></tr> <tr> <td>SARA 313 (TRI reporting)</td><td>Not regulated.</td></tr> </table> <p>Other federal regulations</p> <p>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated.</p> <p>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.</p> <p>Safe Drinking Water Act (SDWA) Not regulated.</p> <p>Food and Drug Administration (FDA) Not regulated.</p> <p>US state regulations This product is not subject to warning labeling under the California Proposition 65 regulation.</p> <p>US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance Not listed.</p>	Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No	SARA 302 Extremely hazardous substance	No	SARA 311/312 Hazardous chemical	No	SARA 313 (TRI reporting)	Not regulated.
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No								
SARA 302 Extremely hazardous substance	No								
SARA 311/312 Hazardous chemical	No								
SARA 313 (TRI reporting)	Not regulated.								

US - Texas Effects Screening Levels: Listed substance

Benzyl-C12-18-alkyldimethyl ammonium chlorides Listed.
(CAS 68391-01-5)

US. Massachusetts RTK - Substance List

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

US. Rhode Island RTK

Not regulated.

Country(s) or region

United States & Puerto Rico

Inventory name

Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no)*

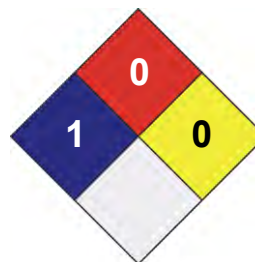
Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date

11-February-2015

Further information

For any questions surrounding this SDS, please contact the supplier/manufacturer listed on the first page of the document.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Not for use on skin. Not a baby wipe. For use on hard surfaces only.

Revision 0.
Bulk Liquid # 4BQ08401.

Other information

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Prepared by

Dell Tech Laboratories, Ltd. Phone: (519) 858-5021




SAFETY DATA SHEET (SDS)

SaniDate® All Purpose Disinfectant

Form #:	SDS-051
Revision Date:	7/31/2020
Revision #:	04
Supersedes Date:	04/09/2019

Section 1: Identification			
Product Name:	SaniDate® All Purpose Disinfectant	Product Type / Description:	Antimicrobial / Disinfectant
Recommended Use:	Antimicrobial / Disinfectant	Other Means of Identification:	Aqueous solution of hydrogen peroxide and peracetic acid
Use Restrictions:	It is a violation of federal law to use this product in a manner inconsistent with its labeling.	Chemical Formula:	CH ₃ CO ₃ H
Manufacturer:	BioSafe Systems, LLC 22 Meadow Street East Hartford, CT 06108	EPA Registration #:	70299-27
Telephone Number:	1-888-273-3088	Emergency Number: 1-800-424-9300 (CHEMTREC)	

Section 2: Hazard Identification	
GHS Classification	Hazard Statements
Acute Toxicity Oral: Category 4 Dermal: Category 5 Skin Corrosion/Irritation: Category 3 Serious Eye Damage/Eye Irritation: Category 1	H302: Harmful if swallowed. H313: May be harmful in contact with skin. H316: Causes mild skin irritation. H318: Causes serious eye damage.
Pictograms	Signal Word
	DANGER
Precautionary Statements	
General	Response
P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use.	P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor. P321: For specific treatments see FIRST AID section on SDS or label P332+P313: If skin irritation occurs: Get medical advice/attention
Prevention	Storage / Disposal
P264: Wash thoroughly after handling. P280: Wear protective gloves, clothing, eye protection, face protection.	P402 + P404: Store in a dry place. Store in a closed container. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3: Composition / Information on Ingredients		
Components	CAS-No	% Composition (w/w)
Hydrogen Peroxide	7722-84-1	4.40 – 6.67%
Peroxyacetic Acid	79-21-0	1.02 – 1.70%
Acetic Acid	64-19-7	13.78 – 15.23%

Section 4: First-Aid Measures	
Eye Contact:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin Contact:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Ingestion:	Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
Inhalation:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1.800.222.1222 for emergency treatment information.
Notes to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.



SAFETY DATA SHEET (SDS)

SaniDate® All Purpose Disinfectant

Form #:	SDS-051
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Revision #:	04
Supersedes Date:	04/09/2019

Most Important Symptoms and effects both acute and delayed	Burning.
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Section 5: Fire-Fighting Measures	
Suitable Extinguishing Media:	Water spray, dry chemical, alcohol foam, or carbon dioxide.
Unsuitable Extinguishing Media:	None.
Combustion Products:	Carbon Oxides.
Unusual Fire and Explosion Hazards:	Product is not flammable but during a fire, product can decompose and generate oxygen which can initiate or promote combustion.
Protective Equipment for Firefighters:	Full chemical protection suits and boots (rubber or PVC) and self-contained breathing apparatus. Cordon the area to keep out all unnecessary personnel. Keep upwind. Use large quantities of water spray to fight fire. Cool containers / tanks with water spray. If safe to do, move product away from fire to secure area. Eliminate all possible sources of ignition and remove flammable material.

Section 6: Accidental Release Measures	
Personal Precautions:	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes.
Emergency Procedures:	Keep away materials that are incompatible with this product. All receiving equipment should be clean, dry, vented, labeled and made of materials compatible with the product.
Environmental Precautions:	Prevent spill from entering waterways.
Methods and Material for Containment and Clean-Up:	Do not return spilled or contaminated material to inventory. Rinse small amounts to drain, when possible. Clean the area with water.

Section 7: Handling and Storage	
Handling:	Wear protective gloves/eye protection. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.
Storage:	Keep away from heat. Keep only in original container. Protect from sunlight. Store at temperatures not exceeding 55°C (131°F). Never return product back to the original container. Store in cool, ventilated area. Never use metal containers or spigots. Use vented container.
Incompatible Materials:	Store away from combustible materials. Keep concentrate away from reactive substances.
Compatible Materials:	304L Stainless Steel, 316L Stainless Steel, Passivated Aluminum; High Density Polyethylene (HDPE), Polyvinyl Chloride (PVC)

Section 8: Exposure Controls / Personal Protection			
Components with Workplace Control Parameters			
Component	ACGIH	NIOSH	OSHA
Acetic Acid	TWA: 10 ppm STEL: 15 ppm	TWA: 25 mg/m ³ - 8 hours. TWA: 10 ppm - 8 hours. IDLH: 50 ppm	TWA: 25 mg/m ³ - 8 hours. TWA: 10 ppm - 8 hours.
Hydrogen Peroxide	TWA: 1 ppm	TWA: 1.4 mg/m ³ - 8 hours. TWA: 1 ppm - 8 hours. IDLH: 75 ppm	TWA: 1.4 mg/m ³ - 8 hours. TWA: 1 ppm - 8 hours.
Peracetic Acid	STEL: 0.4 ppm		

Engineering Controls:	Ensure adequate ventilation. Emergency eye wash stations / emergency showers should be available in the immediate vicinity of any potential exposure.
General Hygienic Practices:	Do not eat, drink or smoke during use. Wash hands immediately after handling the product.
Personal Protective Equipment	
Respiratory Protection:	Use NIOSH-approved air-purifying or supplied air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits. Recommended respirators are those with an organic vapor / acid gas cartridge.
Eye / Face Protection:	Chemical resistant goggles or face shield if splashes are expected to occur.
Hand Protection:	Rubber/latex/neoprene or other suitable chemical resistant gloves. Do not use leather or cotton gloves.
Skin / Body Protection:	Wear non-combustible clothing and footwear (PVC, neoprene, nitrile or natural rubber).

Section 9: Physical and Chemical Properties					
Appearance:	Clear, colorless liquid.	Odor:	Slight vinegar.	Odor Threshold:	NA
Physical State:	Liquid.	pH:	<1.5	Specific Gravity:	1.04 g/cm ³
Melting Point:	NA	Freezing Point:	-30°C (-22°F)	Boiling Point:	NA
Flash Point:	NA	Flammability:	NA	Flammability Limits:	NA



SAFETY DATA SHEET (SDS)

SaniDate® All Purpose Disinfectant

Form #:	SDS-051
Revision Date:	7/31/2020
Revision #:	04
Supersedes Date:	04/09/2019

Vapor Pressure:	22 mm Hg (25°C)	Vapor Density:	NA	Solubility:	Complete.
Evaporation Rate:	NA	Auto-Ignition Temperature:	NA	Decomposition Temperature:	SADT > 55°C (131°F)
Relative Density:	NA	Partition Coefficient n-octanol / water:	NA	Viscosity:	NA

Section 10: Stability and Reactivity	
Reactivity:	Non-reactive under recommended storage conditions.
Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	Open flames, elevated temperatures, heat sources, direct sunlight. Combustible materials.
Incompatible Materials:	Acids / Bases / Reducing Agents / Organic Materials / Metals / Salts of Metals.
Hazardous Decomposition Products:	Thermal decomposition generates corrosive vapors, acetic acid and oxygen which supports combustion.

Section 11: Toxicological Information			
Acute Toxicological Data			
Oral LD50 Rat:	>2000 mg/kg	Dermal LD50 Rat:	>5000 mg/kg
		Inhalation LC50 Rat:	NA
Symptoms and Effects			
Condition	Acute Effects	Chronic (Delayed) Effects	
Eye Contact:	Causes serious eye damage.	None.	
Skin Contact:	May cause irritation.	None.	
Inhalation:	May cause respiratory tract irritation.	None.	
Ingestion:	Harmful if swallowed.	None.	

Section 12: Ecological Information			
Ecotoxicity:	Duration	Species	Value
	48 hr LC50	<i>Oncorhynchus mykiss</i> (rainbow trout)	40 mg/L
	48 hr EC50	Crustaceans	126.8 mg/L
	5 min EC100	<i>Pseudomonas aeruginosa</i>	5 mg/L
Persistence and Degradability:	Weak persistence of degradation products.		
Bioaccumulative Potential:	Does not bioaccumulate.		
Mobility in Soil:	Non-significant adsorption soil degradation, >99% in 20 minutes.		
Results of PBT & vPvB:	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).		
Other Adverse Effects:	None known.		

Section 13: Disposal Considerations	
Waste from Residues and Unused Product:	Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
Contaminated Container Disposal:	Do not reuse or refill containers. Triple rinse empty containers with clean water. Clean and empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: Transport Information							
UN Number		UN Proper Shipping Name		Hazard Class (Subsidiary)	Packing Group	IATA	Marine Pollutant
DOT	NA	Not regulated.		NA	NA	Permitted for shipment by air.	
TDG	NA	Not regulated.		NA	NA		
IMDG	NA	Not regulated.		NA	NA		No
Special Precautions:		Vented container.					
Shipping Placards:		NA					

Section 15: Regulatory Information					
TSCA Inventory List		US EPA CERCLA Hazardous Substances		Clean Water Act	
Acetic Acid	Yes	Acetic Acid	5000 lbs.	5000 lbs.	
Hydrogen Peroxide	Yes	Hydrogen Peroxide	NA	NA	
Peracetic Acid	Yes	Peracetic Acid	NA	NA	
SARA Title III					
	Sec. 302 TPQ.	Sec 304 RQ.	Sec 311 / Sec 312 Hazard Category	Sec 313	Clean Air Act Threshold Qty.
Acetic Acid	NA	NA	NA	NA	NA
Hydrogen	1000 lbs.	1000 lbs.*	Physical: Oxidizer	NA	NA



SAFETY DATA SHEET (SDS)

SaniDate® All Purpose Disinfectant

Form #:	SDS-051
Revision Date:	7/31/2020
Revision #:	04
Supersedes Date:	04/09/2019

Peroxide			Health: Acute Toxicity; Skin Corrosion or Irritation; Serious Eye Damage or Eye Irritation; Specific target organ toxicity					
Peracetic Acid	500 lbs.	500 lbs.	Physical: Organic Peroxide; Corrosive to Metals Health: Acute Toxicity; Skin Corrosion or Irritation; Serious Eye Damage or Eye Irritation; Specific target organ toxicity				Yes	10000 lbs.
<i>*Hydrogen Peroxide Reportable Quantity only applies to concentrations > 52%</i>								
NFPA 704 Rating		Health:	2	Flammability:	0	Reactivity:	0	Special: None.
HMIS Rating		Health:	2	Flammability:	0	Physical:	0	PPE: Recommended.
Uniform Fire Code (NFPA 400)			NA					
California Prop 65		This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.						
FIFRA		This product is a registered pesticide with the United States Environmental Protection Agency (EPA). These requirements may differ from the classification criteria and hazard information required for a safety data sheet under the Global Harmonized Systems (GHS), and for workplace labels of non-pesticide chemicals. It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Always refer to product label for further precautionary information and use directions.						

Section 16: Other Information

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

To the extent of our knowledge, the information herein is accurate as of the date of this document. However, neither BioSafe Systems nor any of its affiliates make any warranty, expressed or implied, or accept any liability relating to the information or its use. The information is for use by technically skilled persons at their own discretion and risk. This is not a license or a patent. The user alone must finally determine suitability of any information or material for any contemplated use, the manner or use and whether any patents are infringed. Always read and follow label directions.

Issuing Date: 4/9/2019 **Revision Date:** 7/31/20 **Revision Notes:** Section 4 most important symptoms update, and section 16 added dates. For additional information, call us toll-free at 1.888.273.3088 or visit www.biosafesystems.com

BioSafe Systems

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McKESSON

SDS DATE: 11.11.15

***** SAFETY DATA SHEET*******SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: SELECT® Povidone Iodine, USP Swabsticks
REORDER #: 986 (1's), 987 (3's)

MANUFACTURED FOR: McKesson Medical Surgical, Inc.
 9954 Mayland Drive
 Richmond, VA 23233

INFORMATION LINE: 1-800-777-4908

EMERGENCY PHONE: 1-800-451-8346 (3E Company)

PRODUCT DESCRIPTION: N/A

SECTION 2: COMPOSITION/INFORMATION OF INGREDIENTS

INGREDIENT	CAS NO.	%	EXPOSURE LIMITS
Povidone Iodine Powder	25655-41-8	4.9%	N/A
Purified Water	7732-18-5	95.1%	N/A

SECTION 2 NOTES: N/A

SECTION 3: HAZARDS IDENTIFICATION

ROUTES OF ENTRY: Skin contact, Ingestion, Eye contact, Inhalation

POTENTIAL HEALTH EFFECTS

EYES: Irritation to eyes if contact occurs

SKIN: Irritation to skin if contact occurs

INGESTION: Harmful if swallowed

INHALATION: Harmful if inhaled

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

CARCINOGENICITY

OSHA: N/A

ACGIH: N/A

NTP: N/A

IARC: N/A

OTHER: N/A

SECTION 3 NOTES: N/A

SECTION 4: FIRST-AID MEASURES

EYES: Immediately flood the eye with plenty of water for at least 15 minutes, holding the eyes open. Obtain medical attention if soreness or redness persists.

SKIN: Immediately flood the skin with large quantities of water. Remove contaminated clothing and continue washing. Obtain medical attention if blistering occurs or redness persists.

INGESTION: Do not induce vomiting. Have victim drink 1—3 glasses of water to dilute stomach contents. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

INHALATION: Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

MCKESSON

SDS DATE: 11.11.15

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 4 NOTES: N/A

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: N/A
(% BY VOLUME) LOWER: N/A

FLASH POINT: N/A
METHOD USED: N/A

AUTOIGNITION TEMPERATURE: N/A

NFPA HAZARD CLASSIFICATION

HEALTH: N/A

FLAMMABILITY: N/A

REACTIVITY: N/A

OTHER: N/A

HMIS HAZARD CLASSIFICATION

HEALTH: N/A

FLAMMABILITY: N/A

REACTIVITY: N/A

PROTECTION: N/A

EXTINGUISHING MEDIA: Use dry chemical, foam or carbon dioxide. Be aware of the possibility of re-ignition. Keep containers and surrounding cool with waterspray.

SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

SECTION 5 NOTES: Non-flammable liquid.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: N/A

SECTION 6 NOTES: N/A

SECTION 7: HANDLING AND STORAGE

HANDLING: N/A

STORAGE: Store in the sealed containers. Storage areas should be cool, dry, and well-ventilated away from incompatible materials.

OTHER PRECAUTIONS: N/A

SECTION 7 NOTES: N/A

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

VENTILATION: N/A

RESPIRATORY PROTECTION: N/A

EYE PROTECTION: N/A

SKIN PROTECTION: N/A

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

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WORK HYGIENIC PRACTICES: N/A

EXPOSURE GUIDELINES: N/A

SECTION 8 NOTES: N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR: N/A

PHYSICAL STATE: N/A

pH AS SUPPLIED: N/A

pH (Other): N/A

BOILING POINT: N/A

MELTING POINT: N/A

FREEZING POINT: N/A

VAPOR PRESSURE (mmHg): N/A

@ N/A

VAPOR DENSITY (AIR = 1): N/A

@ N/A

SPECIFIC GRAVITY (H₂O = 1): N/A

@ N/A

EVAPORATION RATE: N/A

BASIS (=1): N/A

SOLUBILITY IN WATER: N/A

PERCENT SOLIDS BY WEIGHT: N/A

PERCENT VOLATILE: N/A

BY WT/ N/A BY VOL @ N/A

VOLATILE ORGANIC COMPOUNDS (VOC): N/A

WITH WATER: N/A LBS/GAL

WITHOUT WATER: N/A LBS/GAL

MOLECULAR WEIGHT: N/A

VISCOSITY: N/A

@ N/A

SECTION 9 NOTES: N/A

SECTION 10: STABILITY AND REACTIVITY

STABLE

UNSTABLE

STABILITY: X

CONDITIONS TO AVOID (STABILITY): N/A

INCOMPATIBILITY (MATERIAL TO AVOID): N/A

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: N/A

HAZARDOUS POLYMERIZATION: N/A

CONDITIONS TO AVOID (POLYMERIZATION): N/A

McKESSON

SDS DATE: 11.11.15

SECTION 10 NOTES: N/A

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: N/A

SECTION 11 NOTES: N/A

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: N/A

SECTION 12 NOTES: N/A

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

RCRA HAZARD CLASS: N/A

SECTION 13 NOTES: N/A

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

DOT SHIPPING ID NUMBER: N/A

DOT PACKING GROUP: N/A

DOT LABEL STATEMENT: N/A

WATER TRANSPORTATION

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENTS: N/A

AIR TRANSPORTATION

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENTS: N/A

SECTION 14 NOTES: N/A

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): N/A

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): N/A

311/312 HAZARD CATEGORIES: N/A

313 REPORTABLE INGREDIENTS: N/A

STATE REGULATIONS: N/A

INTERNATIONAL REGULATIONS: N/A

McKESSON**SDS DATE:** 11.11.15**SECTION 15 NOTES:** N/A

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: N/A**PREPARATION INFORMATION:** N/A

DISCLAIMER: This information relates onto to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. The information and recommendations contained herein are to the best of the manufacturer's knowledge and belief accurate and reliable as of the date indicated. No representation warranty or guarantee, however, is made with regards to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy itself as to the suitability and completeness of such information for its own particular use. Appropriate warnings and safe-handling procedures should be provided to handlers and users.



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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Sodium Chloride Irrigation (Hospira, Inc.)

Trade Name: Not established
Chemical Family: Mixture

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product

Details of the Supplier of the Safety Data Sheet

Hospira, A Pfizer Company
 275 North Field Drive
 Lake Forest, Illinois 60045
 1-800-879-3477

Hospira UK Limited
 Horizon
 Honey Lane
 Hurley
 Maidenhead, SL6 6RJ
 United Kingdom

Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: pfizer-MSDS@pfizer.com

Emergency telephone number:
International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification Not classified as hazardous

Label Elements

Signal Word: Not Classified
Hazard Statements: Not classified in accordance with international standards for workplace safety.

Other Hazards

An Occupational Exposure Value has been established for one or more of the ingredients (see Section 8).

Note:

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous

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Material Name: Sodium Chloride Irrigation (Hospira, Inc.)
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3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
SODIUM CHLORIDE	7647-14-5	231-598-3	Not Listed	0.45-0.9
SODIUM HYDROXIDE	1310-73-2	215-185-5	Skin Corr. 1A (H314)	**
HYDROCHLORIC ACID	7647-01-0	231-595-7	Skin Corr.1B (H314) STOT SE 3 (H335)	**

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Water for injection	7732-18-5	231-791-2	Not Listed	*

Additional Information:

** to adjust pH

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

For the full text of the CLP/GHS abbreviations mentioned in this Section, see Section 16

4. FIRST AID MEASURES**Description of First Aid Measures**

Eye Contact:	Due to the nature of this material first aid is not normally required.
Skin Contact:	Due to the nature of this material first aid is not normally required.
Ingestion:	Due to the nature of this material first aid is not normally required.
Inhalation:	Not an expected route of exposure.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure:	No data available
Medical Conditions Aggravated by Exposure:	None known

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician:	None
----------------------------	------

5. FIRE FIGHTING MEASURES

Extinguishing Media: As for primary cause of fire.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products:	Not applicable
Fire / Explosion Hazards:	Not applicable

Advice for Fire-Fighters

Not applicable

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Material Name: Sodium Chloride Irrigation (Hospira, Inc.)
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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Not applicable

Environmental Precautions

None

Methods and Material for Containment and Cleaning Up

Measures for Cleaning / Collecting: Wipe up with a damp cloth and place in container for disposal.

Additional Consideration for Large Spills: None

7. HANDLING AND STORAGE

Precautions for Safe Handling

No special handling requirements for normal use of this material.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store as directed by product packaging.

Incompatible Materials: None

Specific end use(s): No data available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

SODIUM CHLORIDE

Latvia OEL - TWA 5 mg/m³

Lithuania OEL - TWA 5 mg/m³

SODIUM HYDROXIDE

ACGIH Ceiling Threshold Limit: 2 mg/m³

Australia PEAK 2 mg/m³

Austria OEL - MAKs 2 mg/m³

Bulgaria OEL - TWA 2.0 mg/m³

Czech Republic OEL - TWA 1 mg/m³

Estonia OEL - TWA 1 mg/m³

France OEL - TWA 2 mg/m³

Greece OEL - TWA 2 mg/m³

Hungary OEL - TWA 2 mg/m³

Japan - OELs - Ceilings 2 mg/m³

Latvia OEL - TWA 0.5 mg/m³

OSHA - Final PELs - TWAs: 2 mg/m³

Poland OEL - TWA 0.5 mg/m³

Slovakia OEL - TWA 2 mg/m³

Slovenia OEL - TWA 2 mg/m³

Sweden OEL - TWAs 1 mg/m³

Switzerland OEL - TWAs 2 mg/m³

HYDROCHLORIC ACID

ACGIH Ceiling Threshold Limit: 2 ppm

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Australia PEAK	5 ppm 7.5 mg/m ³
Austria OEL - MAKs	5 ppm 8 mg/m ³
Belgium OEL - TWA	5 ppm 8 mg/m ³
Bulgaria OEL - TWA	5 ppm 8.0 mg/m ³
Cyprus OEL - TWA	5 ppm 8 mg/m ³
Czech Republic OEL - TWA	8 mg/m ³
Estonia OEL - TWA	5 ppm 8 mg/m ³
Germany - TRGS 900 - TWAs	2 ppm 3 mg/m ³
Germany (DFG) - MAK	2 ppm 3.0 mg/m ³
Greece OEL - TWA	5 ppm 7 mg/m ³
Hungary OEL - TWA	8 mg/m ³
Ireland OEL - TWAs	5 ppm 8 mg/m ³
Italy OEL - TWA	5 ppm 8 mg/m ³
Japan - OELs - Ceilings	2 ppm 3.0 mg/m ³
Latvia OEL - TWA	5 ppm 8 mg/m ³
Lithuania OEL - TWA	5 ppm 8 mg/m ³
Luxembourg OEL - TWA	5 ppm 8 mg/m ³
Malta OEL - TWA	5 ppm 8 mg/m ³
Netherlands OEL - TWA	8 mg/m ³
Poland OEL - TWA	5 mg/m ³
Portugal OEL - TWA	5 ppm 8 mg/m ³
Romania OEL - TWA	5 ppm 8 mg/m ³
Slovakia OEL - TWA	5 ppm 8.0 mg/m ³
Slovenia OEL - TWA	5 ppm 8 mg/m ³
Spain OEL - TWA	5 ppm 7.6 mg/m ³
Switzerland OEL - TWAs	2 ppm 3.0 mg/m ³
Vietnam OEL - TWAs	5 mg/m ³

Exposure Controls

Engineering Controls:
Personal Protective Equipment:

Engineering controls should be used as the primary means to control exposures. Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

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Material Name: Sodium Chloride Irrigation (Hospira, Inc.)
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hands: Not required for the normal use of this product.
Eyes: Not required under normal conditions of use.
Skin: Not required for the normal use of this product.
Respiratory protection: None required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Color:	Colorless
Odor:	None	Odor Threshold:	No data available.
Molecular Formula:	Mixture	Molecular Weight:	Mixture

Solvent Solubility: No data available
Water Solubility: No data available
pH: 4.5-7.0
Melting/Freezing Point (°C): No data available
Boiling Point (°C): No data available.
Partition Coefficient: (Method, pH, Endpoint, Value)

SODIUM HYDROXIDE

No data available

SODIUM CHLORIDE

No data available

Water for injection

No data available

HYDROCHLORIC ACID

No data available

Decomposition Temperature (°C): No data available.

Evaporation Rate (Gram/s): No data available
Vapor Pressure (kPa): No data available
Vapor Density (g/ml): No data available
Relative Density: No data available
Viscosity: No data available

Flammability:

Autoignition Temperature (Solid) (°C):	No data available
Flammability (Solids):	No data available
Flash Point (Liquid) (°C):	No data available
Upper Explosive Limits (Liquid) (% by Vol.):	No data available
Lower Explosive Limits (Liquid) (% by Vol.):	No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available
Chemical Stability: Stable
Possibility of Hazardous Reactions
Oxidizing Properties: No data available
Conditions to Avoid: None
Incompatible Materials: None
Hazardous Decomposition Products: No data available

SAFETY DATA SHEET

Material Name: Sodium Chloride Irrigation (Hospira, Inc.)
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11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: The information included in this section describes the potential hazards of the individual ingredients.

Short Term: Mild eye irritant in experimental animals (based on components)

Acute Toxicity: (Species, Route, End Point, Dose)

SODIUM CHLORIDE

Rat Sub-tenon injection (eye) LC50/1hr > 42 g/m³

Rat Oral LD 50 3g/kg

Mouse Oral LD 50 4g/kg

Rabbit Dermal LD 50 > 10g/kg

HYDROCHLORIC ACID

Rat Oral LD 50 238-277 mg/kg

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

Irritation / Sensitization: (Study Type, Species, Severity)

SODIUM CHLORIDE

Skin Irritation Rabbit Mild

Eye Irritation Rabbit Mild

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

HYDROCHLORIC ACID

Bacterial Mutagenicity (Ames) *Salmonella* Negative

In Vivo Micronucleus Rat Negative

Carcinogen Status: None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

HYDROCHLORIC ACID

IARC: Group 3 (Not Classifiable)

12. ECOLOGICAL INFORMATION

Environmental Overview: No harmful effects to aquatic organisms are expected.

Toxicity: No data available

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

SAFETY DATA SHEET

Material Name: Sodium Chloride Irrigation (Hospira, Inc.)
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13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

SODIUM CHLORIDE

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-598-3

Water for injection

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the obligations of Register:	Present
EU EINECS/ELINCS List	231-791-2

SODIUM HYDROXIDE

CERCLA/SARA 313 Emission reporting	Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	1000 lb 454 kg
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 5 Schedule 6

SAFETY DATA SHEET

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15. REGULATORY INFORMATION

EU EINECS/ELINCS List	215-185-5
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HYDROCHLORIC ACID

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	5000 lb
	2270 kg
CERCLA/SARA - Section 302 Extremely Hazardous TPQs	500 lb
CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	5000 lb
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 5
	Schedule 6
EU EINECS/ELINCS List	231-595-7

16. OTHER INFORMATION**Text of CLP/GHS Classification abbreviations mentioned in Section 3**

Skin corrosion/irritation-Cat. 1A; Skin corrosion/irritation-Cat. 1B; H314 - Causes severe skin burns and eye damage
 Specific target organ toxicity, single exposure; Respiratory tract irritation-Cat. 3; H335 - May cause respiratory irritation

Data Sources:	Publicly available toxicity information.
Reasons for Revision:	Updated Section 3 - Composition / Information on Ingredients. Updated Section 11 - Toxicology Information.
Revision date:	25-Oct-2016
Prepared by:	Product Stewardship Hazard Communication Pfizer Global Environment, Health, and Safety Operations

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet



SAFETY DATA SHEET

Revision date: 16-May-2014

Version: 3.0

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Hydrocortisone Sodium Succinate for Injection (Act-O-Vial)

Trade Name: Solu-Cortef
Chemical Family: Mixture

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product used as anti-inflammatory

Details of the Supplier of the Safety Data Sheet

Pfizer Inc
Pfizer Pharmaceuticals Group
 235 East 42nd Street
 New York, New York 10017
 1-800-879-3477

Pfizer Ltd
 Ramsgate Road
 Sandwich, Kent
 CT13 9NJ
 United Kingdom
 +00 44 (0)1304 616161

Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: pfizer-MSDS@pfizer.com

Emergency telephone number:
International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification

Reproductive Toxicity: Category 2

EU Classification:

EU Indication of danger: Toxic to Reproduction: Category 3

EU Risk Phrases:

R63 - Possible risk of harm to the unborn child.

Label Elements

Signal Word: Warning
Hazard Statements: H361d - Suspected of damaging the unborn child

Precautionary Statements: P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P281 - Use personal protective equipment as required
 P308 + P313 - IF exposed or concerned: Get medical attention/advice
 P405 - Store locked up
 P501 - Dispose of contents/container in accordance with all local and national regulations

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**Other Hazards**

Australian Hazard Classification (NOHSC):

No data available

Hazardous Substance. Non-Dangerous Goods.

Note:

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS**Hazardous**

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Hydrocortisone Sodium Succinate	125-04-2	204-725-5	Repr.Cat.3;R63	Repr. 2 (H361d)	< 86
Sodium hydroxide	1310-73-2	215-185-5	C; R35	Skin Corr. 1A (H314)	**
Benzyl Alcohol	100-51-6	202-859-9	Xn; R20/22	Acute Tox. 4 (H302) Acute Tox. 4 (H332)	<14

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Sodium phosphate, monobasic	7558-80-7	231-449-2	Not Listed	Not Listed	*
Sodium phosphate, dibasic	7558-79-4	231-448-7	Not Listed	Not Listed	*

Additional Information:

* Proprietary

** to adjust pH

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

For the full text of the R phrases and CLP/GHS abbreviations mentioned in this Section, see Section 16

4. FIRST AID MEASURES**Description of First Aid Measures****Eye Contact:**

Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

Skin Contact:

Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

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Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure: For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.
Medical Conditions Aggravated by Exposure: None known

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician: None

5. FIRE FIGHTING MEASURES

Extinguishing Media: Extinguish fires with CO₂, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products: Carbon dioxide, carbon monoxide

Fire / Explosion Hazards: Fine particles (such as dust and mists) may fuel fires/explosions.

Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

Measures for Cleaning / Collecting: Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly.

Additional Consideration for Large Spills: Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Minimize dust generation and accumulation. Avoid contact with eyes, skin and clothing. Avoid breathing dust. When handling, use appropriate personal protective equipment (see Section 8). Wash hands and any exposed skin after removal of PPE. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store as directed by product packaging.

Specific end use(s): No data available

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control Parameters**

Refer to available public information for specific member state Occupational Exposure Limits.

Hydrocortisone Sodium Succinate

Pfizer OEL TWA-8 Hr: 100µg/m³, Skin

Sodium hydroxide

ACGIH Ceiling Threshold Limit:	2 mg/m ³
Australia PEAK	2 mg/m ³
Austria OEL - MAKs	2 mg/m ³
Bulgaria OEL - TWA	2.0 mg/m ³
Czech Republic OEL - TWA	1 mg/m ³
Estonia OEL - TWA	1 mg/m ³
France OEL - TWA	2 mg/m ³
Greece OEL - TWA	2 mg/m ³
Hungary OEL - TWA	2 mg/m ³
Japan - OELs - Ceilings	2 mg/m ³
Latvia OEL - TWA	0.5 mg/m ³
OSHA - Final PELs - TWAs:	2 mg/m ³
Poland OEL - TWA	0.5 mg/m ³
Slovakia OEL - TWA	2 mg/m ³
Slovenia OEL - TWA	2 mg/m ³
Sweden OEL - TWAs	1 mg/m ³
Switzerland OEL - TWAs	2 mg/m ³

Benzyl Alcohol

Bulgaria OEL - TWA	5.0 mg/m ³
Czech Republic OEL - TWA	40 mg/m ³
Finland OEL - TWA	10 ppm
	45 mg/m ³
Latvia OEL - TWA	5 mg/m ³
Lithuania OEL - TWA	5 mg/m ³
Poland OEL - TWA	240 mg/m ³

Analytical Method:

Analytical method available for hydrocortisone. Contact Pfizer Inc for further information.

Exposure Controls**Engineering Controls:**

Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.

Personal Protective Equipment:

Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

Hands:

Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.

Eyes:

Wear safety glasses or goggles if eye contact is possible.

Skin:

Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

Respiratory protection:

If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Powder plus sterile diluent	Color:	White to off-white
Odor:	No data available.	Odor Threshold:	No data available.
Molecular Formula:	Mixture	Molecular Weight:	Mixture
Solvent Solubility:	No data available		
Water Solubility:	No data available		
Solubility:	Soluble: Water		
pH:	7-8 (solution)		
Melting/Freezing Point (°C):	No data available		
Boiling Point (°C):	No data available.		
Partition Coefficient: (Method, pH, Endpoint, Value)			
Sodium phosphate, dibasic			
No data available			
Sodium phosphate, monobasic			
No data available			
Sodium hydroxide			
No data available			
Hydrocortisone Sodium Succinate			
No data available			
Benzyl Alcohol			
No data available			
Decomposition Temperature (°C):	No data available.		
Evaporation Rate (Gram/s):	No data available		
Vapor Pressure (kPa):	No data available		
Vapor Density (g/ml):	No data available		
Relative Density:	No data available		
Viscosity:	No data available		
Flammability:			
Autoignition Temperature (Solid) (°C):		No data available	
Flammability (Solids):		No data available	
Flash Point (Liquid) (°C):		No data available	
Upper Explosive Limits (Liquid) (% by Vol.):		No data available	
Lower Explosive Limits (Liquid) (% by Vol.):		No data available	

10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under recommended storage conditions. Solutions are unstable after 4 hours.
Possibility of Hazardous Reactions	
Oxidizing Properties:	
No data available	
Conditions to Avoid:	
Fine particles (such as dust and mists) may fuel fires/explosions.	
Incompatible Materials:	
As a precautionary measure, keep away from strong oxidizers	
Hazardous Decomposition Products:	
No data available	

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

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11. TOXICOLOGICAL INFORMATION

General Information: The information included in this section describes the potential hazards of the individual ingredients.

Short Term: May cause eye, skin and respiratory tract irritation (based on components) . May be absorbed through the skin in harmful amounts. Central nervous system effects such as headache, dizziness, drowsiness, fatigue, and lack of muscular coordination can also occur. May cause stomach irritation, diarrhea, nausea, or vomiting.

Long Term: Animal studies have shown a potential to cause adverse effects on the fetus.

Known Clinical Effects: Effects on vision have been seen during clinical use. Drugs of this class may cause Cushing's syndrome, manifested by moon face, obesity, headache, acne, thirst, increased urination, impotence, menstrual irregularities, facial hair growth, and mental changes. Clinical use may cause an increase in blood pressure (hypertension). Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions.

Acute Toxicity: (Species, Route, End Point, Dose)**Sodium hydroxide**

Mouse IP LD50 40 mg/kg

Hydrocortisone Sodium Succinate

Rat Oral LD 50 5000 mg/kg

Mouse Oral LD 50 5000mg/kg

Rat Subcutaneous LD 50 449mg/kg

Mouse Subcutaneous LD 50 >500mg/kg

Rat Intraperitoneal LD 50 150mg/kg

Benzyl Alcohol

Rat Oral LD50 1230 mg/kg

Rat Para-periosteal LD50 53mg/kg

Rat Inhalation LC50 >4.178mg/L

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

Irritation / Sensitization: (Study Type, Species, Severity)**Sodium hydroxide**

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Severe

Hydrocortisone Sodium Succinate

Eye Irritation Rabbit Minimal

Benzyl Alcohol

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Moderate

Skin Irritation Guinea Pig Moderate

Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)**Hydrocortisone Sodium Succinate**

7 Day(s) Mouse Oral 140 mg/kg/day LOAEL Thymus

4 Day(s) Mouse Subcutaneous 100 mg/kg/day LOAEL Liver

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11. TOXICOLOGICAL INFORMATION

11 Day(s)	Mouse	Subcutaneous	62 mg/kg/day	LOAEL	Endocrine system
2 Week(s)	Mouse	Subcutaneous	560 mg/kg/day	LOAEL	Liver, Bone Marrow
85 Day(s)	Rat	Subcutaneous	175 mg/kg/day	LOAEL	Adrenal gland

Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))**Hydrocortisone Sodium Succinate**

Reproductive & Fertility-Females	Rat	Oral	210 mg/kg/day	LOAEL	Maternal toxicity
Embryo / Fetal Development	Mouse	Oral	10 mg/kg/day	LOAEL	Developmental toxicity

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)**Hydrocortisone Sodium Succinate**

Bacterial Mutagenicity (Ames) *Salmonella* Negative
In Vivo In Vitro Direct DNA Damage Rat , Mouse Positive
In Vivo In Vitro Chromosome Aberration Rat , Mouse Positive
 Cytogenetics Mouse Negative

Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Environmental Overview: Environmental properties of the formulation have not been thoroughly investigated. Releases to the environment should be avoided.

Toxicity: No data available

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

HYDROCORTISONE SODIUM SUCCINATE FOR INJECTION

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15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada - WHMIS: ClassificationsWHMIS hazard class:

Class D, Division 2, Subdivision A

**Hydrocortisone Sodium Succinate**

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	204-725-5

Sodium hydroxide

CERCLA/SARA 313 Emission reporting	Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	1000 lb 454 kg
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 5 Schedule 6
EU EINECS/ELINCS List	215-185-5

Benzyl Alcohol

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	202-859-9

Sodium phosphate, monobasic

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-449-2

Sodium phosphate, dibasic

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15. REGULATORY INFORMATION

CERCLA/SARA 313 Emission reporting	Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	5000 lb 2270 kg
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-448-7

16. OTHER INFORMATION**Text of R phrases and GHS Classification abbreviations mentioned in Section 3**

Reproductive toxicity-Cat.2; H361d - Suspected of damaging the unborn child
Skin corrosion/irritation-Cat.1A; H314 - Causes severe skin burns and eye damage
Acute toxicity, oral-Cat.4; H302 - Harmful if swallowed
Acute toxicity, inhalation-Cat.4; H332 - Harmful if inhaled

Toxic to Reproduction: Category 3
C - Corrosive
Xn - Harmful

R35 - Causes severe burns.
R63 - Possible risk of harm to the unborn child.
R20/22 - Harmful by inhalation and if swallowed.

Data Sources: Safety data sheets for individual ingredients. Pfizer proprietary drug development information.
Publicly available toxicity information.

Reasons for Revision: Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on
Ingredients. Updated Section 4 - First Aid Measures. Updated Section 7 - Handling and
Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 10 -
Stability and Reactivity. Updated Section 13 - Disposal Considerations. Updated Section 11 -
Toxicology Information. Updated Section 16 - Other Information.

Revision date: 16-May-2014

Prepared by: Product Stewardship Hazard Communication
Pfizer Global Environment, Health, and Safety Operations

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet

MATERIAL SAFETY DATA SHEET

Section 1 – Identification of the Substance and Company

Product Name: Tetanus and Diphtheria Toxoids Adsorbed
 Synonyms: None
 Chemical Family: N/S
 Intended Use: Vaccine
 Company: MassBiologics
 Address: 460 Walk Hill Street
 Mattapan, MA 02126
 617-474-3000

In case of Emergency, contact: 1-800-457-4626

Section 2 – Hazards Identification

Signal Word: Warning
 Hazard Statement: The product is a vaccine that is non-toxic and non-pathogenic. It contains chemically inactivated toxoid proteins that were purified from bacterial cultures. It is not considered to be toxic for humans.
 EU Classification: None required
 EU Hazard Symbol: None required
 EU Risk Phrases: None required
 EU Safety Phrases: None required

Section 3 – Composition / Information on Ingredients

Ingredient(s):	CAS #	EC #	% (by wt)
Tetanus Toxoid	Not Assigned	Not Assigned	0.0008 g %
Diphtheria Toxoid	Not Assigned	Not Assigned	0.0008 g %
Aluminum Phosphate	7784-30-7	232-056-9	0.4 g %
Sodium Phosphate	7601-54-9	231-509-8	N/A
Aluminum Chloride	7446-70-0	231-208-1	N/A
Thimerosal	54-64-8	200-210-4	≤0.002 g%
Formaldehyde	50-00-0	200-001-8	<0.02 g%

Section 4 – First Aid Measures

Eye Contact

May cause eye irritation, immediately flush eyes thoroughly with water for at least 15 minutes; seek medical assistance if irritation persists.

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Skin Contact

Remove all contaminated clothing and rinse area thoroughly with soap and water for 15 minutes; seek medical assistance if irritation develops or persists.

Inhalation

Remove person to fresh air. Seek medical attention if breathing becomes labored.

Ingestion

Never attempt to induce vomiting. Do not attempt to give any solid or liquid by mouth if the exposed subject is unconscious or semi-conscious. If the exposed subject is fully conscious, give plenty of water to drink. Obtain medical attention.

Medical Conditions Aggravated by Exposure

The purified protein components contained in this product are generally not considered to cause disease in humans; although pain, tenderness, erythema, induration, pruritus, swelling and warmth, peripheral are possible at the injection site.

Notes to Physician

Wash and clean injection site.

Section 5 – Fire Fighting Measures

Flammability/Explosively

Not considered to be a fire hazard, although the packaging is combustible. Not considered to be explosive.

Extinguishing Media

Aqueous solutions are non-flammable. Use suitable extinguishing media (e.g., water, alcohol foam, dry chemical, CO₂) for surrounding fire.

Special Fire Fighting Procedures

For single units (packages): No special requirements needed. For larger amounts (multiple packages/pallets) of product, since toxic, corrosive or flammable vapors might evolve from fires involving product and associated packaging, full protective clothing and a self-contained breathing apparatus are recommended for firefighters or other qualified persons. Decontaminate all equipment after use and if possible, contain and collect firefighting water for later disposal.

Hazardous Combustion Products

None known from product, although toxic, corrosive or flammable thermal decomposition products from packaging are possible.

Section 6 – Accidental Release Measures

Spill Protection Equipment

Wear appropriate protective clothing consistent with the degree of hazard.

Procedures to be followed in Case of Leak or Spill

Surround spill using spill pillows or other inert absorbents. Capture remaining liquid onto spill absorbents. Place spill materials into a leak-proof container suitable for disposal. Dispose of material in a manner that is compliant with federal, state and local laws. Take precautions to prevent entry into waterways, sewers, or surface drainage systems.

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Section 7 – Handling and Storage

Storage

Keep in original container, Store at 2-8 degrees C. Do Not Freeze.

Disposal

Dispose of used vial and unused product as a biomedical waste.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limit / Occupational Exposure Category or Band

None currently established by OSHA, NIOSH, or ACGIH.

Engineering Controls

None required for normal handling.

Eye Protection

Eye protection is not needed under normal and intended conditions of product use.

Respiratory Protection

A respirator is not needed under normal and intended conditions of product use.

Skin Protection

Skin protection is not needed under normal and intended conditions of product use.

Other

Wash hands, face and other potentially exposed areas immediately after handling material (especially before eating, drinking, or smoking). Decontaminate all protective equipment after use. Always exercise extreme care when working with sharps/needles/syringe.

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Section 9 – Physical and Chemical Properties

Appearance:	Homogenous milky white suspension (after shaking)
Physical State:	Liquid
Odor:	N/A
Molecular Weight:	N/A
pH:	6.0
Boiling Point:	N/A
Melting Point:	N/A
Vapor Pressure:	N/A
Flash Point:	N/A
Flammability:	N/A
Relative Density:	N/A
Partition Co-efficient:	N/A
Auto ignition Temperature:	N/A
Solubility in Water:	N/A
Other Solubility:	N/A
Evaporation Rate:	N/A
Specific Gravity:	N/A
Vapor Density:	N/A
Percent Volatile:	N/A

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Section 10 – Stability and Reactivity

Stability:	Chemically stable
Hazardous Polymerization:	Not expected to occur
Hazardous Decomposition Products:	Not expected to occur
Conditions to Avoid:	Do Not Freeze
Materials to Avoid:	None known

Section 11 – Toxicological Information

Acute Toxicity: Product contains inactivated bacterial protein and is not pathogenic. Adverse health effects are considered unlikely when the product is used as a vaccine or administered according to label directions.

Repeat Dose Toxicity: Not considered to be toxic for humans

Target Organs: No data available

Irritation/Sensitization: No data available

Genotoxicity: No data available

Carcinogenicity: No data available

Reproductive and Developmental Toxicity: No data available

Section 12 – Environmental Information

No studies identified. No known significant effects or critical hazards. Local regulations and procedures should be consulted prior to environmental release.

Section 13 – Disposal Considerations

The disposal method for rejected products/returned goods must ensure that they cannot be resold or reused. Dispose of wastes in accordance with prescribed federal, state, and local guidelines.

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Section 14 – Transport Information

The MSDS should accompany all shipments for reference in the event of spillage or accidental release only authorized persons trained and competent in accordance with appropriate national and international regulatory requirements may prepare dangerous good for transport.

Transport information: Transportation and shipping of this product is not restricted. It has no known significant hazards requiring special packaging or labeling for air, maritime, US or European ground transport purposes.

Section 15 – Regulatory Information

This MSDS complies with the requirements under 29 CFR 1910.1200 and EU guidelines.

OSHA Hazard: None required.

Canada - WHMIS Classifications: Not regulated.

California Proposition 65: Not regulated.

SARA 313: Not listed

CERCLA: Not listed

RCRA: Not listed

TSCA: Not listed

Other: Not listed

Section 16 – Other Information

Sources of Key Data Used to Compile MSDS

MassBiologics provides this information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. MassBiologics makes no representation or warranties either express or implied, or merchantability, fitness for a particular purpose with respect to information set forth herein or to the product to which the information refers. Accordingly MassBiologics will not be responsible for damages resulting from use or reliance upon this information.



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	ThinPrep® PreservCyt Solution
Version #	003
Issue date	09-August-2013
Revision date	-
Supersedes date	-
CAS #	Mixture
MSDS Number	85093-001 Rev. 003
Product use	A methanol based, buffered preservative solution used to support cells during transport and slide preparation.
Manufacturer information	
Manufacturer	Hologic Inc.
Address	250 Campus Drive Marlborough, Massachusetts, 01752 USA
Telephone	(800) 442-9892
Contact	
Emergency Telephone	3E Hotline: 1-866-519-4752 Access Code: 333605
Email	sds@hologic.com

2. Hazards Identification

Physical state	Liquid.
Appearance	Clear, colorless liquid.
Emergency overview	DANGER
	Flammable liquid and vapor. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes skin and eye irritation. May cause central nervous system effects.
Potential health effects	
Routes of exposure	Ingestion. Inhalation. Skin contact. Eye contact.
Eyes	Causes eye irritation.
Skin	Causes skin irritation. Harmful if absorbed through skin.
Inhalation	Harmful if inhaled. May cause central nervous system effects.
Ingestion	May be fatal if swallowed. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.
Target organs	Central nervous system. Eyes. Respiratory system. Skin.
Chronic effects	Methanol: Human exposure to methanol may result in illness, systemic poisoning, blindness, optic nerve damage and perhaps death, after being ingested, absorbed through the skin or inhaled. Death due to cardiac or respiratory failure has been reported in some cases from consumption of as little as 30 mls.
Signs and symptoms	Prolonged and repeated exposure to high vapor concentrations, skin absorption or ingestion of methanol may result in visual disturbances, metabolic acidosis, headache, giddiness, nausea, insomnia, gastric disturbance, dizziness, and slow breathing. There have been severe cases reported of blindness, coma and death due to the ingestion of methanol.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Water	7732-18-5	40 - 70
Methanol	67-56-1	30 - 60

Composition comments	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
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4. First Aid Measures

First aid procedures

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. If irritation persists: Continue flushing during transport to hospital. Take along these instructions.

Skin contact

Take off immediately all contaminated clothing. Immediately flush thoroughly with water for at least 15 minutes. Get medical attention immediately. Wash contaminated clothing before reuse.

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.

Ingestion

Do not induce vomiting without advice from medical personnel. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Notes to physician

Treat for CNS depression and possible renal failure. Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ethanol and fomepizole are effective antidotes for methanol poisoning, although fomepizole is preferred.

General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties

Flammable liquid and vapor. By heating and fire, toxic vapors/gases may be formed. Heat may cause the containers to explode.

Extinguishing media

Suitable extinguishing media

Dry chemical, foam, carbon dioxide. Water may be an ineffective extinguishing medium.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Specific hazards arising from the chemical

Heating will generate vapors which may form explosive vapor/air mixtures.

Protective equipment and precautions for firefighters

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Fire fighting equipment/instructions

Evacuate area. Move containers from fire area if you can do it without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers.

Specific methods

Keep unnecessary personnel away. Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous combustion products

Carbon monoxide. Carbon dioxide.

6. Accidental Release Measures

Personal precautions

Ensure adequate ventilation. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Wear suitable protective clothing, gloves and eye/face protection. Wear protective clothing as described in Section 8 of this safety data sheet. Follow standard emergency procedure.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid discharge to the aquatic environment.

Methods for containment

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Collect spillage. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Immediately contact emergency personnel. Remove sources of ignition. Beware of the explosion danger. Absorb spillage with non-combustible, absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

Use only with adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapors. The product is highly flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Ground container and transfer equipment to eliminate static electric sparks. Use non-sparking hand tools and explosion-proof electrical equipment. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Avoid release to the environment.

Storage

Follow rules for flammable liquids. Keep away from heat, spark, open flames and other sources of ignition. Keep container tightly closed in a cool, well-ventilated place. Store away from incompatible materials. Keep out of the reach of children.

Storage temperature:

Without cytologic sample: 59-86°F (15-30°C)

With cytologic samples, for up to six weeks: 39-99°F (4-37°C)

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methanol (CAS 67-56-1)	PEL	260 mg/m ³
		200 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	328 mg/m ³
		250 ppm
	TWA	262 mg/m ³
		200 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	328 mg/m ³
		250 ppm
	TWA	262 mg/m ³
		200 ppm

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	310 mg/m ³
		250 ppm
	TWA	260 mg/m ³
		200 ppm

Exposure guidelines**Canada - Alberta OELs: Skin designation**

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Mexico OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US - California OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US - Tennessee OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US. OSHA Table Z-1-A (29 CFR 1910.1000)

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Engineering controls

Observe occupational exposure limits and minimize the risk of exposure. Explosion-proof general and local exhaust ventilation. Use explosion-proof equipment.

Personal protective equipment**Eye / face protection**

Wear approved safety goggles.

Skin protection

Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.

General hygiene considerations

When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practices. Launder contaminated clothing before reuse. Observe any medical surveillance requirements.

9. Physical & Chemical Properties**Appearance**

Clear, colorless liquid.

Physical state

Liquid.

Form

Liquid.

Color

Colorless.

Odor

Alcohol.

Odor threshold

Not available.

pH

5.5

Boiling point

148 °F (64.44 °C)

Melting point/Freezing point

-55 °F (-48.33 °C)

Solubility (water)

Complete

Flash point

80.0 °F (26.7 °C) Closed Cup

Flammability limits in air, upper, % by volume

36 %

Flammability limits in air, lower, % by volume

6.7 %

Auto-ignition temperature 725 °F (385 °C)

Percent volatile > 99 %

10. Chemical Stability & Reactivity Information

Chemical stability Material is stable under normal conditions.

Conditions to avoid Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Confined space.

Incompatible materials Strong oxidizing agents. Reducing agents. Acids. Alkali metals. Metal powders. Potassium. Sodium. Anhydrides. Acid chlorides. Aluminum. Magnesium.

Hazardous decomposition products Carbon oxides. Formaldehyde.

Possibility of hazardous reactions Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Methanol (CAS 67-56-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	15800 mg/kg
<i>Inhalation</i>		
LC50	Rat	87.5 mg/l, 6 Hours
<i>Oral</i>		
LD50	Rat	5628 mg/kg
Sensitization	Not a skin sensitizer.	
Acute effects	May cause central nervous system effects. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes skin and eye irritation.	
Chronic effects	Methanol: Human exposure to methanol may result in illness, systemic poisoning, blindness, optic nerve damage and perhaps death, after being ingested, absorbed through the skin or inhaled. Death due to cardiac or respiratory failure has been reported in some cases from consumption of as little as 30 mls.	
Carcinogenicity	Not classified.	
Epidemiology	No data available.	
Mutagenicity	No data available.	
Reproductive effects	The information located does not suggest that methanol is a reproductive toxin.	
Symptoms and target organs	Prolonged and repeated exposure to high vapor concentrations, skin absorption or ingestion of methanol may result in visual disturbances, metabolic acidosis, headache, giddiness, nausea, insomnia, gastric disturbance, dizziness, and slow breathing. There have been severe cases reported of blindness, coma and death due to the ingestion of methanol.	

12. Ecological Information

Ecotoxicological data

Components	Species	Test Results
Methanol (CAS 67-56-1)		
Aquatic		
Crustacea	EC50 Water flea (<i>Daphnia magna</i>)	> 10000 mg/l, 48 hours
Fish	LC50 Fathead minnow (<i>Pimephales promelas</i>)	> 100 mg/l, 96 hours
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
Persistence and degradability	No data available.	
Bioaccumulation / Accumulation	No data available.	
Partition coefficient	No data available.	

Methanol (CAS 67-56-1)

-0.77

Mobility in environmental media

The product is water soluble and may spread in water systems. The product is a volatile substance, which may spread in the atmosphere.

13. Disposal Considerations**Waste codes**

U154: Waste Methyl alcohol

US RCRA Hazardous Waste U List: Reference

Methanol (CAS 67-56-1)

U154

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations.

Waste from residues / unused products

Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information**DOT****Basic shipping requirements:****UN number**

UN1993

Proper shipping name

Flammable liquids, n.o.s. (Methanol Solution)

Hazard class

3

Packing group

III

Additional information:**Special provisions**

B1, B52, IB3, T4, TP1, TP29

Packaging exceptions

150

Packaging non bulk

203

Packaging bulk

242

IATA**UN number**

UN1993

UN proper shipping name

Flammable liquid, n.o.s. (Methanol Solution)

Transport hazard class(es)

3

Packing group

III

ERG code

3L

IMDG**UN number**

UN1993

UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (Methanol Solution)

Transport hazard class(es)

3

Packing group

III

EmS

F-E, S-E

TDG**UN number**

UN1993

Proper shipping name

FLAMMABLE LIQUID, N.O.S. (Methanol Solution)

Hazard class

3

Packing group

III

Marine pollutant

D

Special provisions

16

15. Regulatory Information**US federal regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methanol (CAS 67-56-1)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Methanol (CAS 67-56-1)

1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Methanol (CAS 67-56-1)

Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

Methanol: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A)
 No

SARA 311/312 Hazardous chemical
 Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)
 Not controlled

Canadian regulations
 This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status
 Controlled

WHMIS classification
 B2 - Flammable Liquids
 D1B - Immediate/Serious-TOXIC
 D2A - Other Toxic Effects-VERY TOXIC

WHMIS labeling**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

State regulations
 WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Methanol (CAS 67-56-1) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Methanol (CAS 67-56-1) Listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Methanol (CAS 67-56-1) Listed: March 16, 2012 Developmental toxin.

US - New Jersey RTK - Substances: Listed substance

Methanol (CAS 67-56-1) Listed.

US. Massachusetts RTK - Substance List

Methanol (CAS 67-56-1) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Methanol (CAS 67-56-1)

500 lbs

US. Pennsylvania RTK - Hazardous Substances

Methanol (CAS 67-56-1)

Listed.

Mexico regulations

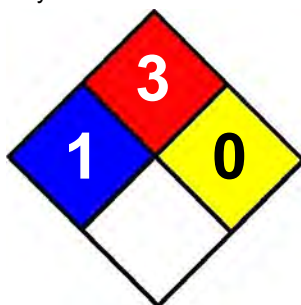
This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information**HMIS® ratings**

Health: 1


Flammability: 3

Physical hazard: 0

NFPA Ratings**Disclaimer**

THE INFORMATION CONTAINED IN THIS DOCUMENT RELATES TO THIS SPECIFIC MATERIAL AND MAY NOT BE VALID IF THE MATERIAL IS USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY ONESELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OR HER OWN PARTICULAR USE.

Amneal Pharmaceuticals Pvt. Ltd.
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION		
Product Information		
Product name	Triamcinolone Acetonide Injection (10 or 40 mg/ml)	
Version	0.0, 03/15/2016	
Jurisdiction	This Material Safety Data Sheet was prepared for the jurisdiction USA.	
Active substance	Triamcinolone Acetonide	
Synonyms	Sterile Triamcinolone Acetonide Suspension USP; Kenalog-10 Injection; Kenalog-40 Injection	
Product Uses	This material is a finished drug product for patient use. This material is used to provide relief of inflammatory and pruritic skin conditions.	
Company/Undertaking Identification		
Address	<div></div> <div>Amneal Pharmaceuticals Pvt. Ltd. New Jersey United States of America</div>	
Emergency Phone Number	1-800- - -----	For all international transportation emergencies call Collect calls accepted.
2. COMPOSITION/INFORMATION ON INGREDIENTS		
Components	Concentration	CAS-No.
Hazardous components		
Triamcinolone Acetonide	1 - 4 %	76-25-5
Other ingredients		
Water	90 - 100 %	7732-18-5
Sodium Carboxymethylcellulose	<1 %	9004-32-4
Tween 80	<1 %	9005-65-6
Benzyl alcohol	<1 %	100-51-6
Hydrochloric acid	<1 %	7647-01-0
Sodium Chloride	<1 %	7647-14-5
Sodium Hydroxide	<1 %	1310-73-2
3. HAZARDS IDENTIFICATION		
Emergency Overview		
Appearance	liquid : white to off-white, suspension	
Signal Word	Warning!	
Hazard Statements	Teratogen May be harmful to fetus. Reproductive toxicant Target Organs: adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin, female reproductive organs, (embryo/fetus).	

Continued

3. HAZARDS IDENTIFICATION

Precautionary Measures	Avoid ingestion, inhalation, skin and eye contact. Wash hands after handling to minimize exposure. Wear suitable protective clothing and gloves. Pregnant or nursing women should avoid exposure. Prevent release to the environment.
<i>Potential Health Effects</i>	
Eyes	Possible mild eye irritant
Skin	Rapidly absorbed through skin., Repeated exposure may cause skin dryness or cracking., May be harmful if absorbed through skin.
Ingestion	May cause damage to organs through prolonged or repeated exposure if swallowed.
Inhalation	May cause damage to organs through prolonged or repeated exposure if inhaled.
Target Organs	adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin, female reproductive organs, (embryo/fetus)
Signs and Symptoms	Chronic: muscle weakness, muscle pain, bone fractures, infection, oedema, headache, difficulty sleeping, vertigo, restlessness, euphoria, mental disturbance, depression, anxiety, mood changes, seizure disorders, nosebleeds, cough, fever, nausea, vomiting, anorexia, gastrointestinal disturbance, sore throat, dry mouth, taste disturbance, speech difficulty, congestion, redness and swelling of eyes, vision changes, facial swelling, skin thinning, acne, redness and swelling of skin, hives, bruising, superficial burning sensation, tingling.
Medical conditions aggravated include:	diabetes, Liver disorders, infection, immunodeficiency, hypertension, myasthenia gravis, osteoporosis, peptic ulcer, psychotic disorders, colitis, kidney disorders
<i>Environmental Effects</i>	Refer to Section 12

4. FIRST AID MEASURES

Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Obtain medical attention.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention. Wash contaminated clothing before re-use.
Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Obtain medical attention.
Ingestion	Do NOT induce vomiting. Consult a physician if necessary. Never give anything by mouth to an unconscious person.

Continued

4. FIRST AID MEASURES

Notes to physician	This material is a finished drug product for patient use. This material is used to provide relief of inflammatory and pruritic skin conditions. This product may cause: muscle weakness, muscle pain, bone fractures, infection, oedema, headache, difficulty sleeping, vertigo, restlessness, euphoria, mental disturbance, depression, anxiety, mood changes, seizure disorders, nosebleeds, cough, fever, nausea, vomiting, anorexia, gastrointestinal disturbance, sore throat, dry mouth, taste disturbance, speech difficulty, congestion, redness and swelling of eyes, vision changes, facial swelling, skin thinning, acne, redness and swelling of skin, hives, bruising, superficial burning sensation, tingling, increase in blood pressure, Cushing's syndrome, electrolyte disturbance, hyperglycemia, adrenocortical insufficiency, withdrawal symptoms, osteoporosis, bone effects, menstrual irregularities, sperm abnormalities, cataracts, glaucoma, nose changes, otitis, peptic ulcer, psychotic disorders, pancreatitis, changes in white blood cell parameters. Organs effected may include: adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin, female reproductive organs, (embryo/fetus). Medical conditions aggravated include: diabetes, Liver disorders, infection, immunodeficiency, hypertension, myasthenia gravis, osteoporosis, peptic ulcer, psychotic disorders, colitis, kidney disorders. This product has been reported to interact with the following medications: diuretic, cyclosporine, immunosuppressants, NSAID (non-steroidal antiinflammatory drugs), drug metabolized by cytochrome P-450, drugs that cause hyperglycemia, oral hypoglycemic drugs, neuromuscular blocking agents, fluoroquinolone antibiotics, certain vaccines, drugs that inhibit cytochrome P-450. Refer to Section 11. Pregnant or nursing women should avoid exposure.
Medical Surveillance	<p>A pre-placement physical examination and history for employees with potential exposure to this compound is recommended. Baseline testing would include: Pre-placement:, blood glucose test, a complete blood count with differential. Based on opportunity for exposure and duration of exposure a periodic follow-up examination may be considered.</p> <p>Employees, who are pregnant, are breast-feeding, or who are concerned with other reproductive issues should be encouraged to consult with the occupational health physician monitoring worker's health.</p>

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not available
Extinguishing Media	<p>Suitable extinguishing media: Dry chemical, Water spray, Foam</p> <p>Unsuitable extinguishing media: Do NOT use water jet.</p>
Protection of Firefighters	<p>Specific hazards: Teratogen skin absorption hazard</p> <p>Protective equipment: Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.</p> <p>Hazardous Combustion Products: carbon oxides, hydrogen halides</p>
Other information:	Decontaminate protective clothing and equipment before reuse. Heating can release hazardous gases. HCl gas can form flammable or explosive mixtures with alcohols or metals.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Examples include tightly fitting safety goggles, disposable lab coat of low permeability with cuffs, double gloves and shoe covers. Wear respiratory protection. Depending on the nature of the spill (quantity and extent of spill) additional protective clothing and equipment such as a self-contained breathing apparatus may be needed.
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Continued

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions	Prevent release to drains and waterways. Prevent release to the environment.
Containment Methods	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Cleanup Methods	Contain and collect spillage and place in container for disposal according to local regulations (see Section 13). Clean spill area with a deactivating solution (if available) followed by detergent and water after spill pick-up. Handle waste materials, including gloves, protective clothing, contaminated spill cleanup material, etc., as appropriate for chemically and pharmacologically similar materials.

7. HANDLING AND STORAGE

Handling Precautions	Highly potent material. Avoid exposure - obtain special instructions before use. Avoid inhalation of vapour or mist. Keep away from heat and sources of ignition. Prevent release to drains and waterways.
Storage Conditions	Store at room temperature. (20 - 25°C) Protect against light. Avoid freezing.
Container Requirements	Store in sturdy containers appropriate to maintain the integrity of this material for its intended use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)	Company Guideline	ACGIH	OSHA	NIOSH
Triamcinolone Acetonide	1 µg/m ³ (Skin), Developmental Toxicity	--	--	--
Benzyl alcohol	--	--	--	--
Sodium Hydroxide	--	2 mg/m ³ Ceiling	2 mg/m ³ TWA	2 mg/m ³ Ceiling 10 mg/m ³ IDLH
Hydrochloric acid	--	2 ppm Ceiling	5 ppm Ceiling 7 mg/m ³ Ceiling	5 ppm Ceiling 7 mg/m ³ Ceiling 50 ppm IDLH
Exposure Control Band	<u>Triamcinolone Acetonide</u> 4 -- The established company exposure guideline falls within Exposure Control Band 4 (range 1 -20 µg/m ³).			
Bristol-Myers Squibb Exposure Guidelines Summary	<u>Triamcinolone Acetonide</u> Materials require particular care and handling. Adherence to this guideline should protect employees from experiencing the therapeutic and/or adverse effects of this drug.			
Recommended Industrial Hygiene Monitoring Methods	Contact the Bristol-Myers Squibb AIHA accredited Industrial Hygiene Laboratory at 732-227-7368. See Section 4 "Notes to Physician" for information on medical surveillance.			

Continued

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls and Ventilation	When handling small quantities in a clinical setting, good room ventilation is desirable. Specific engineering controls should not be needed. When handling larger quantities, such as in a manufacturing setting, ensure worker exposure is below the recommended exposure limit. If significant aerosol (mist) is generated, use process enclosures, containment technology, or other engineering controls to keep airborne levels below recommended exposure limit.
Respiratory protection	Respiratory protection is not required for normal use of this material. If the occupational exposure limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL. Note: May cause damage to organs through prolonged or repeated exposure if inhaled.
Eye protection	Chemical splash resistant goggles should be worn when potential for splash exists.
Hand protection	Impervious nitrile, rubber and latex gloves are recommended. Please note that employees who are allergic to natural rubber latex should use nitrile gloves.
Skin and body protection	It is recommended that a laboratory coat be worn when handling product.
Hygiene	Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES*Appearance*

Physical State	liquid
Color	white to off-white
Form	suspension

Descriptive properties

Molecular Weight	Not available
Molecular formula	Not applicable
Bulk density	Not available
Evaporation rate	Not available
Hydrolysis/Photolysis	Not available
Hygroscopicity	Not available
Log Octanol/Water Partition Coeff [log Kow]	Not available
Surface Tension	Not available
Odor	Not remarkable.
Odor Threshold	Not available
pH	5 - 7
pKa	Not available
Particle Size	Not available
Solubility, Water	soluble
Specific Gravity/ Relative density	1.015
Viscosity	similar to water

Thermal/Stability properties

Autoignition temperature	Not available
Boiling Point	100 °C
Thermal decomposition	Not available
Explosive Limits, LEL	Not available
Explosive limits, LEL	Not available

Continued

9. PHYSICAL AND CHEMICAL PROPERTIES

Explosiveness	Not available
Flammability	Not available
Flash point	Not available
Melting Point	0 °C
Oxidizing Potential	Not available
<i>Vapor Properties</i>	
Vapor Density	(Air =1): If adequate temperatures caused material to volatilize, its vapor density would be much greater than 1. (Heavier than air)
Vapor Pressure	Not available
Saturated Vapor Concentration	Not available

10. STABILITY AND REACTIVITY*Stability*

Chemical Stability	Stable under normal conditions.
Conditions to avoid	Not available
Incompatible products	Not available
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions.: carbon oxides, hydrogen halides
Hazardous reactions	Not available
<i>Sensitivity to static discharge/Dust exp.</i>	
Summary Statements	not applicable

11. TOXICOLOGICAL INFORMATION

Routes of Entry	Ingestion, Inhalation, Eye contact, Skin contact
Eye irritation	<u>Triamcinolone Acetonide</u> Possible mild eye irritant
Skin irritation	<u>Triamcinolone Acetonide</u> Repeated exposure may cause skin dryness or cracking. skin thinning
Respiratory Irritation	<u>Triamcinolone Acetonide</u> May cause irritation of respiratory tract.
Sensitisation	<u>Triamcinolone Acetonide</u> Not a dermal sensitizer Allergic contact dermatitis is quite rare but has been reported.
Acute Toxicity Study	Acute Oral <u>Triamcinolone Acetonide</u> Oral LD50(mouse): 5,000 mg/kg Acute toxicity (other routes of administration) <u>Triamcinolone Acetonide</u> LD50 (rat, subcutaneous): 13.1 mg/kg LD50 (mouse, subcutaneous): 132 mg/kg LD50 (mouse, Intraperitoneal): 105 mg/kg

Continued

11. TOXICOLOGICAL INFORMATION

Repeated dose toxicity	<u>Triamcinolone Acetonide</u> Assessment Repeat Dose Toxicity Several studies were conducted. Results from these studies in multiple species were generally similar with respect to target organs and effects. See Section 11 Target Organs and Symptoms for a description of effects.			
Genetic Toxicity	<u>Triamcinolone Acetonide</u> in vitro Ames reverse-mutation assay -- negative Forward gene mutation assay -- negative Mutagenicity Assessment Several studies were conducted. The weight of evidence demonstrates that this material is not genotoxic.			
Carcinogenicity	<u>Triamcinolone Acetonide</u> 104 Weeks Oral rat study : [tumor organs: liver] positive 104 Weeks Oral rat study : NOAEL = 0.001 mg/kg No treatment-related tumors were observed. 104 Weeks Oral mouse study : NOAEL = 0.003 mg/kg No treatment-related tumors were observed. Carcinogenicity Assessment Several studies were conducted. The results were negative and positive. Not classifiable as to its carcinogenicity to humans.			
Carcinogenicity	ACGIH	OSHA	NTP	IARC
Triamcinolone Acetonide	--	--	--	--
Reproductive Toxicity	<u>Triamcinolone Acetonide</u> Assessment Reproductive Toxicity Several studies were conducted. May impair fertility. Maternal effects include: menstrual irregularities . Paternal effects include: sperm abnormalities See "Human Experience". See also "Developmental Toxicity" for information on reproductive effects.			
Developmental Toxicity	<u>Triamcinolone Acetonide</u> Developmental Toxicity Assessment Several developmental studies were conducted. Birth defects were observed in animal studies. Compound may be toxic during early embryonic development. Teratogen This compound and/or its metabolites may be excreted into the milk. May cause harm to breastfed babies.			
Human experience	Experiences with Human Exposure <u>Triamcinolone Acetonide</u> General effects therapeutic use - Symptoms: muscle weakness, muscle pain, bone fractures, infection, oedema, headache, difficulty sleeping, vertigo, restlessness, euphoria, mental disturbance, depression, anxiety, mood changes, seizure disorders, nosebleeds, cough, fever, nausea, vomiting, anorexia, gastrointestinal disturbance, sore throat, dry mouth, taste disturbance, speech difficulty,			

Continued

11. TOXICOLOGICAL INFORMATION

congestion, redness and swelling of eyes, vision changes, facial swelling, skin thinning, acne, redness and swelling of skin, hives, bruising, superficial burning sensation, tingling.

Other effects include: increase in blood pressure, Cushing's syndrome, electrolyte disturbance, hyperglycemia, adrenocortical insufficiency, withdrawal symptoms, osteoporosis, bone effects, menstrual irregularities, cataracts, glaucoma, nose changes, otitis, peptic ulcer, psychotic disorders, pancreatitis, changes in white blood cell parameters.

EpidemiologyTriamcinolone Acetonide

Epidemiological study - Several studies have associated the development of oral clefts with exposure during pregnancy. Fetal effects include: decreased body weight .

Target OrgansTriamcinolone Acetonide

adrenal glands, bone, muscle, gastrointestinal tract, immune system, eyes, nervous system, skin, female reproductive organs

SymptomsTriamcinolone Acetonide

See "Human Experience".

Other Toxicity Information

Not available

Other Information:

This MSDS may contain toxicological and/or pharmacological information derived from either the specified product or from compounds in the same pharmacological class.

12. ECOLOGICAL INFORMATION**Ecotoxicological Information (Aquatic)****Acute Toxicity to Aquatic Invertebrates**Triamcinolone Acetonide

EC50 (Daphnia magna, 48 H) : > 100 mg/l

Ecotoxicological Information (Terrestrial)

Not available

Chemical fate information**Biodegradation**Triamcinolone Acetonide

Ultimate aerobic biodegradation (28 D) : 3 % ; Not Readily Biodegradable - unlikely to undergo rapid biodegradation in the environment

Summary Statements**Aquatic toxicity**

Experimental data indicate low potential for acute harm to aquatic invertebrates

Chemical Fate

Not readily biodegradable.

Continued

13. DISPOSAL CONSIDERATIONS

Advice On Disposal And Packaging	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements. This information presented only applies to the material as supplied.
Other information	Disposal by incineration is recommended.

14. TRANSPORT INFORMATION

This material is not a dangerous good for the purpose of transportation.

15. REGULATORY INFORMATION**United States of America**

OSHA Hazard Classification	Teratogen, Target Organs.
313 Toxic Release Inventory. Listed Chemicals/Compounds	No components listed on the SARA 313 inventory.
TSCA Inventory	Not listed. Food, drug and cosmetic products are exempt from TSCA.

International**Canada**

WHMIS	This product is not regulated under the Hazardous Products Act and Controlled Products Regulations. This product, however, may have significant health hazard and could meet the criteria for: D2A Very Toxic Material Causing Other Toxic Effects
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DSL/NDSL

yes

Mexico

Mexico Classification	Health classification - Serious Hazard - 3 - Substances that can cause serious or permanent harm under emergency conditions
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Europe

EINECS/ELINCS Number	Triamcinolone Acetonide: 200-948-7 Water: 231-791-2 Benzyl alcohol: 202-859-9 Sodium Chloride: 231-598-3 Sodium Hydroxide: 215-185-5 Hydrochloric acid: 231-595-7
R-phrase(s)	Medicinal products are exempt from classification and labeling requirements under EU Preparations Directive 1999/45/EC.

16. OTHER INFORMATION**MSDS preparation information**

Prepared by	Corporate Quality, Environmental Health & Safety 1-732-227-7380
Prepared on	02/15/2016
	This Safety Data Sheet has been revised. This MSDS has been reformatted in a new electronic system. This data sheet contains changes from the previous version in section(s): All.

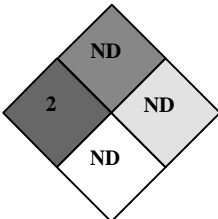
Continued

Other information

HMIS	Health	2*
	Flammability	Not Determined (ND)
	Reactivity	Not Determined (ND)
	Personal protective equipment	See Section 8.

NFPA

Health	2
Fire	ND
Reactivity	ND
Special	ND



The information contained in this MSDS is believed to be accurate and represents the best information reasonably available at the time of preparation. However, we make no warranty, express or implied, with respect to such information. and we assume no liability from its use.

Material Safety Data Sheet for Sanofi Pasteur Vaccines and Biologics

Contact: Customer Service – 1-800-822-2463

Effective Date: February 3, 2011

NFPA Rating (0,0,0)

Product:

ActHIB[®], Haemophilus b Conjugate Vaccine (Tetanus Toxoid Conjugate)

ADACEL[®], Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine Adsorbed

DAPTACEL[®], Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine Adsorbed

DECAVAC[®], Tetanus and Diphtheria Toxoids Adsorbed (For 7 years of age and older)

DT, Diphtheria and Tetanus Toxoids Adsorbed USP (For Pediatric Use up to 7 years of age)

Fluzone[®], Influenza Virus Vaccine (All presentations)

Imogam[®] Rabies-HT, Rabies Immune Globulin (Human) USP Heat Treated

IMOVAX[®] RABIES, Rabies Vaccine

IPOL[®], Poliovirus Vaccine Inactivated

Menactra[®], Meningococcal (Groups A, C, Y and W-135) Polysaccharide Diphtheria Toxoid Conjugate Vaccine

Menomune[®] -A/C/Y/W-135, Meningococcal Polysaccharide Vaccine, Groups A, C, Y and W-135 Combined

Pentacel[®], Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Inactivated Poliovirus and Haemophilus b Conjugate (Tetanus Toxoid Conjugate) Vaccine

Tetanus Toxoid Adsorbed

TheraCys[®], BCG Live (Intravesical)

Tripedia[®], Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine Adsorbed

Tubersol[®], Tuberculin Purified Protein Derivative (Mantoux)

Typhim Vi[®], Typhoid Vi Polysaccharide Vaccine

YF-VAX[®], Yellow Fever Vaccine

Diluent:

Diluent for reconstitution of ActHIB vaccine

Diluent for reconstitution of IMOVAX RABIES vaccine

Diluent for reconstitution of Menomune vaccine

Diluent for reconstitution of TheraCys BCG

Diluent for reconstitution of YF-VAX vaccine

We have conducted a hazard evaluation of the constituents of the above products in accordance with OSHA's Hazard Communication Standard [29 CFR 1910.1200(d)]. It has been determined that the product or diluent ingredients do not pose a physical or health hazard at the percentages present in the mixtures based on the guidelines set by OSHA's Hazard Communication Standard. Therefore, as of this date, we are not required under OSHA Federal Regulations to distribute a Material Safety Data Sheet for these products.

For more information concerning product safety refer to the prescribing information or call Customer Service at the phone number listed above.

Sanofi Pasteur Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. Sanofi Pasteur Inc. makes no representations, or warranties, either express or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Sanofi Pasteur Inc. will not be responsible for damages resulting from use of or reliance upon this information.

SAFETY DATA SHEET



Virex TB Ready-To-Use Disinfectant Cleaner

Version Number: 1

Preparation date: 2014-10-09

1. IDENTIFICATION

Product name: Virex TB Ready-To-Use Disinfectant Cleaner
Product Code: 04743
SDS #: MS0800547
Recommended use:

- Industrial/Institutional
- Disinfectant
- This product is intended to be used neat.

Uses advised against: Uses other than those identified are not recommended

Manufacturer, importer, supplier:

US Headquarters Diversey, Inc. 8310 16th St. Sturtevant, Wisconsin 53177-1964 Phone: 1-888-352-2249 MSDS Internet Address: www.diversey.com	Canadian Headquarters Diversey, Inc. - Canada 3755 Laird Road Mississauga, Ontario L5L 0B3 Phone: 1-800-668-3131
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Emergency telephone number: 1-800-851-7145 (U.S.); 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

Serious eye damage/eye irritation	Category 2A
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**Signal Word:****Warning****Precautionary Statements****CAUSES SERIOUS EYE IRRITATION.**

Avoid contact with eyes, skin and clothing. Wash affected areas thoroughly after handling. May cause irritation to mouth, throat and stomach. Wear chemical-splash goggles and chemical-resistant gloves. IF SWALLOWED: Rinse mouth. Drink a cupful of milk or water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice or attention. Dispose of in accordance with all federal, state and local applicable regulations. SUPPLEMENTAL INFORMATION. May be mildly irritating to skin. In case of contact, immediately flush with plenty of water. If irritation occurs and persists, get medical attention.

Health hazards not otherwise classified (HHNOC) - Not applicable**Physical hazards not otherwise classified (PHNOC)** - Not applicable

Classification for the diluted product @ RTU

This product is intended to be used neat.

Precautionary Statements

See undiluted product information above.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classified Ingredients**

Ingredient(s)	CAS #	Weight %
Diethylene glycol butyl ether	112-34-5	5 - 10%
Tetrasodium salt of EDTA	64-02-8	1% - < 3%
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	68391-01-5	> 0.1% - < 1%
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	68956-79-6	> 0.1% - < 1%

*Exact percentages are being withheld as trade secret information

4. FIRST AID MEASURES**Undiluted Product:**

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin: In case of contact, immediately flush with plenty of water. If irritation occurs and persists, get medical attention.

Inhalation: No specific first aid measures are required.

Ingestion: IF SWALLOWED: Rinse mouth. Drink a cupful of milk or water.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed: Not applicable.

Aggravated Medical Conditions: Persons with pre-existing skin disorders may be more susceptible to irritating effects.

Diluted Product:

This product is intended to be used neat.

Eyes: See undiluted product information above.

Skin: See undiluted product information above.

Inhalation: See undiluted product information above.

Ingestion: See undiluted product information above.

5. FIRE-FIGHTING MEASURES

Specific methods:

No special methods required

Suitable extinguishing media:

The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards:

Not applicable.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Put on appropriate personal protective equipment (see Section 8.).

Environmental precautions

Clean-up methods - large spillage. Soak up with inert absorbent material. Sweep up and shovel into

and clean-up methods:

suitable containers for disposal. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not taste or swallow. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage:

Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

Aerosol Level (if applicable) : Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
Exposure Guidelines:

Ingredient(s)	CAS #	ACGIH	OSHA
Diethylene glycol butyl ether	112-34-5	10 ppm (TWA)	-
Tetrasodium salt of EDTA	64-02-8	-	-
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	68956-79-6	-	-
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	68391-01-5	-	-

Undiluted Product:**Engineering measures to reduce exposure:**

No special ventilation requirements General room ventilation is adequate

Personal Protective Equipment

Eye protection:	Chemical-splash goggles.
Hand protection:	Chemical-resistant gloves.
Skin and body protection:	No special requirements under normal use conditions.
Respiratory protection:	No special requirements under normal use conditions.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

Diluted Product:

This product is intended to be used neat.

Personal Protective Equipment

Eye protection:	Chemical-splash goggles.
Hand protection:	Chemical-resistant gloves.
Skin and body protection:	No special requirements under normal use conditions.
Respiratory protection:	No special requirements under normal use conditions.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: Liquid

Evaporation Rate: No information available

Odor threshold: No information available.

Melting point/range: Not determined

Autoignition temperature: No information available

Solubility in other solvents: No information available

Density: 8.44 lbs/gal 1.012 Kg/L

Bulk density: No information available

Flash point: > 200 °F > 93.3 °C

Dilution Flash Point: > 200 °F > 93.3 °C

Elemental Phosphorus: 0 % by wt.

pH: 12.2

Dilution pH: 12.2 @ RTU

Metal Corrosion: Not determined

Explosion limits: - upper: Not determined - lower: Not determined

Color: Clear, Colorless

Odor: Lemon Citrus

Boiling point/range: Not determined

Decomposition temperature: Not determined

Solubility: Completely Soluble

Relative Density (relative to water): 1.012

Vapor density: No information available

Vapor pressure: No information available.

Partition coefficient (n-octanol/water): No information available

Viscosity: No information available

VOC: 0.06 % *

VOC % by wt. at use dilution 0.06 % *

Flammability (Solid or Gas): Not applicable

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity:	Not Applicable
Stability:	The product is stable
Hazardous decomposition products:	Nitrogen oxides (NOx).
Materials to avoid:	Acids. Oxidizing agents.
Conditions to avoid:	No information available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye contact, Skin contact, Inhalation

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: May be mildly irritating to skin. Symptoms may include redness and/or transient discomfort.

Eye contact: Causes serious eye irritation. Symptoms may include pain, redness, and watering.

Ingestion: May be irritating to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

Inhalation: May be irritating to nose, throat, and respiratory tract. Symptoms may include coughing and difficulty breathing.

Sensitization: No known effects.

Numerical measures of toxicity

ATE - Oral (mg/kg): >5000

ATE - Inhalatory, mists (mg/l): >20

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: PESTICIDAL WASTE - Observe all applicable Federal/Provincial/State regulations and Local/Municipal ordinances regarding disposal of pesticide wastes. This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Contaminated Packaging: Do not re-use empty containers.

RCRA Hazard Class (undiluted product): Not Regulated

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Diversey HazMat Library, only available through Internet Explorer, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT (Ground) Bill of Lading Description: DISINFECTANTS

IMDG (Ocean) Bill of Lading Description: DISINFECTANTS

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA).

U.S. Regulations

EPA Reg. No. : 70627-2

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS: This product is toxic to fish and aquatic invertebrates.

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Diethylene glycol butyl ether	112-34-5	-	X	-	-
Tetrasodium salt of EDTA	64-02-8	-	-	-	-
Alcohol ethoxylates	68131-39-5	-	-	-	-
Sodium metasilicate	6834-92-0	-	-	-	-
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	68391-01-5	-	-	-	-
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	68956-79-6	-	-	-	-

CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Diethylene glycol butyl ether	112-34-5	5 - 10%			X

Ingredient(s)	CAA HAP	CAA ODS	CWA Priority Pollutants
Diethylene glycol butyl ether	X		

SARA 311/312 Hazard Categories

Immediate:	x
Delayed:	-
Fire:	-
Reactivity:	-
Sudden Release of Pressure:	-

Canada

WHMIS hazard class: Not for sale in Canada.

Ingredient(s)	CAS #	NPRI
Diethylene glycol butyl ether	112-34-5	X

16. OTHER INFORMATION**NFPA (National Fire Protection Association)**

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 2

Flammability 0

Instability 0

Version Number: 1

Preparation date: 2014-10-09

Reason for revision: Not applicable

Prepared by: NAPRAC

Additional advice: • Contains an added fragrance, see "Odor" heading in section 9 for specific description

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