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SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product No.:	Product name:	Common name(s), synonym(s)
930299	BD™ ChloraPrep™ Frepp Sterile Solution Applicator	No data available
930700	BD™ ChloraPrep™ Sterile Solution Applicator Clear, 10.5 mL	No data available
930800	BD™ ChloraPrep™ Sterile Solution Applicator Clear, 26 mL	No data available

Recommended restrictions

Recommended use: Skin Antiseptic
Restrictions on use: For External Use Only

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name:	Becton Dickinson
Address:	1550 Northwestern Dr El Paso, TX 79912 USA
Telephone:	800-523-0502 (Monday to Friday 8 a.m. to 5 p.m. CT)
Fax:	
Contact Person:	Customer Service

Emergency telephone number: CHEMTREC 1 800 424 9300

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids	Category 2

Health Hazards

Serious Eye Damage/Eye Irritation	Category 2

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Specific Target Organ Toxicity - Single Exposure	Category 3

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:
H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
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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P337+P313: If eye irritation persists: Get medical advice/attention.
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal: P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards which do not result in GHS classification: FK: Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.
Spark: Sparks may ignite liquid and vapor.
H241: May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
2-Propanol	No data available.	67-63-0	62.3%
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.	18472-51-0	2.3%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of first aid measures

General information: Get medical attention if symptoms occur.

Inhalation: Move to fresh air. Get medical attention if any discomfort continues.

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Skin Contact:	Wash skin thoroughly with soap and water.
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Ingestion:	Drink plenty of water. Get medical attention immediately.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	No data available.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	No data available.

5. Fire-fighting measures

General Fire Hazards:	Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Use: Water. Water fog. Dry chemical. Alcohol foam.
Unsuitable extinguishing media:	Not applicable
Special hazards arising from the substance or mixture:	No data available.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:	No unusual fire or explosion hazards noted.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

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Personal precautions, protective equipment and emergency procedures:	See Section 8 of the SDS for Personal Protective Equipment.
Accidental release measures:	Considering the size of the packaging, the risk is regarded as minimal.
Methods and material for containment and cleaning up:	Small quantities may be flushed to drains with plenty of water. Large Spillages: Absorb spillage with non-combustible, absorbent material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
Environmental Precautions:	Avoid release to the environment.

7. Handling and storage

Handling

Technical measures:	No data available.
Local/Total ventilation:	No data available.
Safe handling advice:	Do not eat, drink or smoke when using the product. Avoid ingestion. For External Use Only Avoid contact with eyes, skin, and clothing.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Store in a cool, dry place. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids. Store at temperature 15 - 30°C. Protect from freezing. Avoid excessive heat (40°C). Store isolated from oxidizers, ignition sources, and explosives. Consult local fire codes for additional storage information. Keep out of reach of children.
Safe packaging materials:	No data available.

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8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
2-Propanol	TWA	400 ppm	980 mg/m3	OSHA Z1A
	STEL	500 ppm	1,225 mg/m3	OSHA Z1A
	TWA	400 ppm	980 mg/m3	TN OEL
	STEL	500 ppm	1,225 mg/m3	TN OEL
	AN ESL		200 ppb	TX ESL
	ST ESL		2,000 ppb	TX ESL
	AN ESL		492 µg/m3	TX ESL
	ST ESL		4,920 µg/m3	TX ESL
	TWA PEL	400 ppm	980 mg/m3	US CA OEL
	STEL	500 ppm	1,225 mg/m3	US CA OEL
	TWA	200 ppm		ACGIH
	STEL	400 ppm		ACGIH
	STEL	500 ppm	1,225 mg/m3	NIOSH
	REL	400 ppm	980 mg/m3	NIOSH
	IDLH	2,000 ppm		NIOSH IDLH
	LEL		2.0 %	NIOSH IDLH
	PEL	400 ppm	980 mg/m3	OSHA Z1

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Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

Chemical name	Parameters / Sampling Time	Exposure Limit Values	Source
2-Propanol	acetone Sampling time: End of shift at end of work week.	40 mg/l (Urine)	ACGIH BEI

Appropriate Engineering Controls Adequate ventilation should be provided so that exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Material: Latex gloves for normal use, Nitrile gloves recommended for spill cleanup

Skin and Body Protection: No special precautions.

Respiratory Protection: None should be needed.

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Hygiene measures: Avoid contact with eyes.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Clear
Odor:	Alcohol
Odor Threshold:	No data available.
Freezing point:	No data available.
Boiling Point:	188.6 °F/87.0 °C
Flammability:	Flammable liquid

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	12.7 %(V)
Explosive limit - lower:	2.2 %(V)
Flash Point:	68.2 °F/20.1 °C Method: Closed Cup 75.2 °F/24.0 °C Method: Open Cup
Self-ignition:	Product is not self-igniting.
Decomposition Temperature:	No data available.
pH:	estimated 7.0

Viscosity

Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	Soluble

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Solubility (other):	Soluble
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	43 hPa
Relative density:	0.880
Density:	No data available.
Bulk density:	No data available.
Relative vapor density:	No data available.

Other information

Auto-ignition temperature:	797 °F/425 °C
Metal Corrosion:	Not Evaluated

10. Stability and reactivity

Reactivity:	Material is stable under normal conditions.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Not determined.
Conditions to avoid:	Excessive heat.
Incompatible Materials:	Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium
Hazardous Decomposition Products:	Carbon Dioxide. Carbon Monoxide. Chlorinated compounds.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	None under normal conditions.
Skin Contact:	Prolonged or repeated skin contact may cause drying, cracking, or irritation.

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Eye contact:	Do not get in eyes.
Ingestion:	Due to the small packaging the risk of ingestion is minimal.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No specific symptoms noted.
Skin Contact:	Repeated exposure may cause skin dryness or cracking.
Eye contact:	Causes serious eye irritation. May cause permanent damage if eye is not immediately irrigated.
Ingestion:	No data available.

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix, 73,913.04 mg/kg
Components:	
2-Propanol	LD 50, Rat, 5,045 mg/kg
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)	LD 50, Rat, 2,000 mg/kg LD 50, Mouse, 1,700 mg/kg, 2 = reliable with restrictions

Dermal

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)	LD 50, Rabbit, 5,000 mg/kg, 2 = reliable with restrictions LD 50, Rabbit, > 5,000 mg/kg, 2 = reliable with restrictions, Experimental result, Key study

Inhalation

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-	No data available.

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tetraazatetradecanediimid amide (2:1)

Repeated dose toxicity

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)	No data available.

Skin Corrosion/Irritation

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)	No data available.

Serious Eye Damage/Eye Irritation

Product:	Causes eye irritation.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)	No data available.

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
2-Propanol	Skin sensitization:, in vivo, Guinea pig, Non sensitising
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)	No data available.

Carcinogenicity

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Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:
No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity
In vitro

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

In vivo

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Reproductive toxicity

Product:	No data available.
Components:	

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2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Aspiration Hazard

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Information on health hazards

Other hazards

Product:	No data available.

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12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-	No data available.

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chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimi damide (2:1)	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimi damide (2:1)	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimid amide (2:1)	No data available.

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
2-Propanol	53 %, 5 d, Experimental result, Key study Detected in water.

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D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	65 %, Experimental result, Key study Detected in water. 100 %, Experimental result, Not specified Detected in water. > 0 %, Experimental result, Key study Detected in water. 79 %, Experimental result, Key study Detected in water. 71 %, Experimental result, Key study Detected in water.

BOD/COD Ratio

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	Green algae (Chlorella fusca vacuolata), 2,560, Static Carp (Leuciscus idus melanotus), 42, Renewal Leuciscus idus, 42, Experimental result, Key study Aquatic sediment Leuciscus idus, 40, Experimental result, Key study Aquatic sediment

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Mobility in soil:

Product:	No data available.
Components:	
2-Propanol	No data available.

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D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Results of PBT and vPvB assessment:

Product:	No data available.
Components:	
2-Propanol	No data available.
D-Gluconic acid, compd. with N1,N14-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1)	No data available.

Other adverse effects:

Other hazards
Product: No data available.

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority requirements.

Disposal methods: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. RCRA D001

Contaminated Packaging: No data available.

14. Transport information

Environmental Hazards

Environmentally Hazardous: No

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Marine Pollutant:	No

IATA

UN number or ID number:	ID 8000
UN Proper Shipping Name:	Consumer commodity
Transport Hazard Class(es)	
Class:	9
Label(s):	9MI (Miscellaneous)
Packing Group:	–
Passenger and cargo aircraft :	Y963
Limited quantity	None.

Environmental Hazards	
Environmentally Hazardous:	No
Marine Pollutant:	No
Special precautions for user:	PG
Passenger and cargo aircraft:	Allowed. Y963
Cargo aircraft only :	Allowed. Y963

IMDG

UN number or ID number:	UN 1219
UN Proper Shipping Name:	ISOPROPANOL

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Transport Hazard Class(es)

Class:	3
Label(s):	3
EmS No.:	F-E, S-D
Packing Group:	II
Limited quantity	None.

Environmental Hazards

Environmentally Hazardous:	No
Marine Pollutant:	No

Special precautions for user: PG

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

Not applicable for product as supplied.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

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US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Proposed Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

RCRA HAZARDOUS WASTE NO. D001

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Specific target organ toxicity (single or repeated exposure), Hazards Not Otherwise Classified (HNOC)

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

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Chemical Identity	% by weight
Isopropyl alcohol (Isopropanol) (only persons who manufacture by the strong acid process are subject, no supplier notification)	1.0%

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

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

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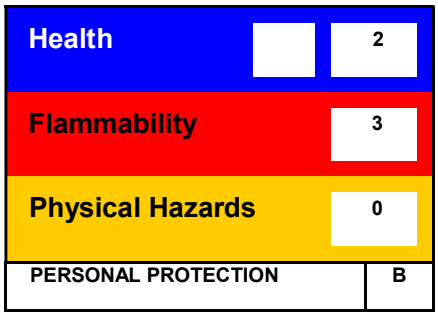
16.Other information, including date of preparation or last revision

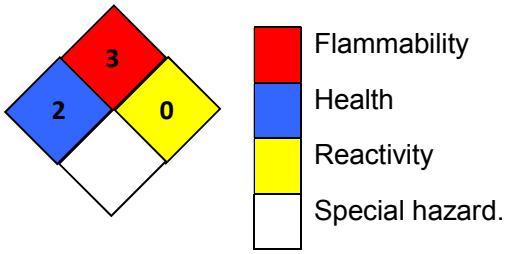
HMIS Hazard ID



B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Version #: 1.1

Generation date: 09/27/2024

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Date of first report version: 08/28/2019

Abbreviations and acronyms:

:	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants
:	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A
ACGIH:	US. ACGIH Threshold Limit Values, as amended
ACGIH BEI:	US. ACGIH. BEIs. Biological Exposure Indices, as amended
NIOSH IDLH:	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
NIOSH/GUIDE:	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
OSHA_TRANS:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
TX ESL:	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
Z1A:	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
/ STEL:	Short Term Exposure Limit (STEL):
/ TWA PEL:	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):
/ STEL:	Short Term Exposure Limit (STEL):
/ TWA:	Time Weighted Average (TWA):
ACGIH / STEL:	Short Term Exposure Limit (STEL):
ACGIH / TWA:	Time Weighted Average (TWA):
NIOSH IDLH / LEL:	Lower Explosive Limit (LEL):
NIOSH IDLH / IDLH:	Immediately dangerous to life or health (IDLH) concentration:
NIOSH/GUIDE / REL:	Recommended exposure limit (REL):

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NIOSH/GUIDE / STEL:	Short Term Exposure Limit (STEL):
OSHA_TRANS / PEL:	Permissible exposure limit:
TX ESL / ST ESL:	Short-Term ESL:
TX ESL / AN ESL:	Annual ESL:
Z1A / STEL:	Short Term Exposure Limit (STEL):
Z1A / TWA:	Time Weighted Average (TWA):

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund

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Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further Information: No data available.

Disclaimer

Disclaimer:
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