Conserver

Date of compilation: 11/22/2022 Revised: 4/24/2024 Version: 4 (Replaced 3)

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: Conserver

Other means of identification:

Not applicable (N/A)

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Water repeller

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

GARDX INTERNATIONAL LTD
LAKE HOUSE, 2 PORT WAY, PORT SOLENT,
PO6 4TY PORTSMOUTH - UNITED KINGDOM
Phone: +44 (0)1243 376426
product@gardx.co.uk
www.gardx.co.uk

Importer:
Atkins Kroll Saipan,
Chalan Monsignor Guerrero,
Oleai,
Saipan CNMI 96950.

Tel: 1-670-234-5911

1.4 Emergency phone number: CNN: 1012486. For 24/7 multilingual advice for spill, leak, fire, exposure, or accident call Chemtrec Toll-Free number 1-800-424-9300. Oregon Poison Centre: 1-800-222-1222.

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

NFPA:

Health Hazards: 2
Flammability Hazards: 0
Instability Hazards: 0
Special Hazards: Not applicable (N/A)

HMIS®:

Health: 2
Flammability: 0
Physical Hazard: 0
Personal Protection: B

29 CFR 1910.1200:

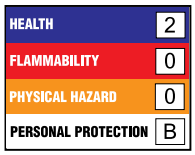
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Irrit. 2A: Eye irritation, Category 2A, H319
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317

2.2 Label elements:

NFPA:

HMIS®:



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SECTION 2: HAZARD(S) IDENTIFICATION (continued)

29 CFR 1910.1200:

Warning

Hazard statements:

Eye Irrit. 2A: H319 - Causes serious eye irritation.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P280: Wear protective gloves/eye protection.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

Substances that contribute to the classification

2-methylisothiazol-3(2H)-one (CAS: 2682-20-4)

Additional labeling:

Federal Hazardous Substances Act (FHSA) >> Irritant (Eyes)
May irritate eyes. Do not get in eyes. Keep out of reach of children.
FIRST AID TREATMENT
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do and continue rinsing. If eye irritation persists: Get medical advice/attention.
Contains : 2-methylisothiazol-3(2H)-one (CAS 2682-20-4).
Federal Hazardous Substances Act (FHSA) >> Strong sensitizer (dermal)
May cause an allergic skin reaction. Wear gloves. Keep out of reach of children.
FIRST AID TREATMENT
If on skin, rinse well with water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Contains : 2-methylisothiazol-3(2H)-one (CAS 2682-20-4).

2.3 Hazards not otherwise classified (HNOC):

Not applicable (N/A)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of white oils and tensoactives

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 8042-47-5	**White mineral oil, <=20.5mm2/s (40ºC)** Asp. Tox. 1: H304 - Danger	**1 - <3 %**
CAS: 61789-77-3	**Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides** Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger	**1 - <3 %**
CAS: 111-76-2	**2-butoxyethanol** Acute Tox. 4: H302+H312+H332; Eye Irrit. 2A: H319; Skin Irrit. 2: H315 - Warning	**1 - <3 %**

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification	Concentration
CAS: 97862-59-4	**1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts** Eye Dam. 1: H318 - Danger	**1 - <3 %**
CAS: 67-63-0	**propan-2-ol** Eye Irrit. 2A: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	**<1 %**
CAS: 2682-20-4	**2-methylisothiazol-3(2H)-one** Acute Tox. 2: H330; Acute Tox. 3: H301+H311; Eye Dam. 1: H318; Skin Corr. 1B: H314; Skin Sens. 1A: H317 - Danger	**<1 %**

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation,however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

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

Not applicable (N/A)

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

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SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:

For accidental releases in excess of reportables quantities (RQ) (Table 302.4), refer to 40 CFR 302 for detailed instructions concerning reporting requirements and notify the National Response Center (800) 424-8802.

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Minimum Temp.:	39.2 ºF
Maximum Temp.:	104 ºF
NFPA 30:	IIIB

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):

Identification	Occupational exposure limits		
2-butoxyethanol [1] CAS: 111-76-2	8-hour TWA PEL	50 ppm	240 mg/m³
	Ceiling Values - TWA PEL		
propan-2-ol CAS: 67-63-0	8-hour TWA PEL	400 ppm	980 mg/m³
	Ceiling Values - TWA PEL		

US. ACGIH Threshold Limit Values (2022):

Identification	Occupational exposure limits		
2-butoxyethanol [1] CAS: 111-76-2	TLV-TWA	20 ppm	
	TLV-STEL		
propan-2-ol CAS: 67-63-0	TLV-TWA	200 ppm	
	TLV-STEL	400 ppm	

CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS:

Identification	Occupational exposure limits		
2-butoxyethanol [1] CAS: 111-76-2	PEL	20 ppm	97 mg/m³
	STEL		
propan-2-ol CAS: 67-63-0	PEL	400 ppm	980 mg/m³
	STEL	500 ppm	1225 mg/m³

[1] Skin

Biological limit values:

Biological Exposure Indices (BEIs®) - ACGIH

Identification	BEIs®	Determinant	Sampling Time
2-butoxyethanol CAS: 111-76-2	200 mg/g (NULL)	Butoxyacetic acid (BAA) in urine	End of shift
propan-2-ol CAS: 67-63-0	40 mg/L	Acetone in urine	End of shift at end of workweek

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.11 mm, Conditions of use: Splashing)	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer´s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer´s use limitations and OSHA standard 1910.133 (29CFR)

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.
	Anti-slip work shoes	Replace before any evidence of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 68 ºF:	Liquid
Appearance:	Opaque
Color:	Pink
Odor:	Solvent
Odour threshold:	Not applicable (N/A) *

Volatility:

Boiling point at atmospheric pressure:	217 ºF
Vapour pressure at 68 ºF:	2344 Pa
Vapour pressure at 122 ºF:	12347.87 Pa (12.35 kPa)
Evaporation rate at 68 ºF:	Not applicable (N/A) *

Product description:

Density at 68 ºF:	Not applicable (N/A) *
Relative density at 68 ºF:	0.986 - 0.996
Dynamic viscosity at 68 ºF:	Not applicable (N/A) *
Kinematic viscosity at 68 ºF:	Not applicable (N/A) *
Kinematic viscosity at 104 ºF:	Not applicable (N/A) *
Concentration:	Not applicable (N/A) *
pH:	4 - 6 (at 100 %)
Vapour density at 68 ºF:	Not applicable (N/A) *
Partition coefficient n-octanol/water 68 ºF:	Not applicable (N/A) *
Solubility in water at 68 ºF:	Not applicable (N/A) *
Solubility properties:	Emulsifiable
Decomposition temperature:	Not applicable (N/A) *

*Not applicable (N/A) due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Melting point/freezing point:	Not applicable (N/A) *
Flammability:	
Flash Point:	Non Flammable (>199.4 ºF)
Flammability (solid, gas):	Not applicable (N/A) *
Autoignition temperature:	460 ºF
Lower flammability limit:	Not applicable (N/A) *
Upper flammability limit:	Not applicable (N/A) *
Particle characteristics:	
Median equivalent diameter:	Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:	
Explosive properties:	Not applicable (N/A) *
Oxidising properties:	Not applicable (N/A) *
Corrosive to metals:	Not applicable (N/A) *
Heat of combustion:	Not applicable (N/A) *
Aerosols-total percentage (by mass) of flammable components:	Not applicable (N/A) *
Other safety characteristics:	
Surface tension at 68 ºF:	Not applicable (N/A) *
Refraction index:	Not applicable (N/A) *

*Not applicable (N/A) due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO_2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not applicable (N/A)

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
2-butoxyethanol	LD50 oral	1200 mg/kg (ATEi)	Rat
CAS: 111-76-2	LD50 dermal	3000 mg/kg	Rabbit
	LC50 inhalation	3 mg/L (ATEi)	
White mineral oil, <=20.5mm2/s (40ºC)	LD50 oral	>5000 mg/kg	Rat
CAS: 8042-47-5	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	LD50 oral	960 mg/kg (ATEi)	Rat
CAS: 61789-77-3	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts	LD50 oral	2335 mg/kg	Rat
CAS: 97862-59-4	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	
propan-2-ol	LD50 oral	5280 mg/kg	Rat
CAS: 67-63-0	LD50 dermal	12800 mg/kg	Rat
	LC50 inhalation	72.6 mg/L (4 h)	Rat
2-methylisothiazol-3(2H)-one	LD50 oral	120 mg/kg	Rat
CAS: 2682-20-4	LD50 dermal	242 mg/kg	Rat
	LC50 inhalation	>20 mg/L	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Acute toxicity:

Identification	Concentration		Species	Genus
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts	LC50	1.9 mg/L (96 h)	N/A	Fish
CAS: 97862-59-4	EC50	6.5 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	4.66 mg/L (72 h)	Desmodesmus subspicatus	Algae
propan-2-ol	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
CAS: 67-63-0	EC50	13299 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1000 mg/L (72 h)	Scenedesmus subspicatus	Algae
2-methylisothiazol-3(2H)-one	LC50	4.77 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 2682-20-4	EC50	0.934 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Not applicable (N/A)		

Chronic toxicity:

Identification	Concentration		Species	Genus
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	NOEC	Not applicable (N/A)		
CAS: 61789-77-3	NOEC	0.15 mg/L	Daphnia magna	Crustacean
2-butoxyethanol	NOEC	100 mg/L	Danio rerio	Fish
CAS: 111-76-2	NOEC	100 mg/L	Daphnia magna	Crustacean
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts	NOEC	0.135 mg/L	Oncorhynchus mykiss	Fish
CAS: 97862-59-4	NOEC	0.32 mg/L	Daphnia magna	Crustacean
2-methylisothiazol-3(2H)-one	NOEC	4.93 mg/L	Oncorhynchus mykiss	Fish
CAS: 2682-20-4	NOEC	0.044 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	BOD5	Not applicable (N/A)	Concentration	Not applicable (N/A)
CAS: 61789-77-3	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	82 %
2-butoxyethanol	BOD5	0.71 g O2/g	Concentration	100 mg/L
CAS: 111-76-2	COD	2.2 g O2/g	Period	14 days
	BOD5/COD	0.32	% Biodegradable	96 %

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts	BOD5	Not applicable (N/A)	Concentration	10 mg/L
CAS: 97862-59-4	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	87 %
propan-2-ol	BOD5	1.19 g O2/g	Concentration	100 mg/L
CAS: 67-63-0	COD	2.23 g O2/g	Period	14 days
	BOD5/COD	0.53	% Biodegradable	86 %
2-methylisothiazol-3(2H)-one	BOD5	Not applicable (N/A)	Concentration	10 mg/L
CAS: 2682-20-4	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	55.8 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
2-butoxyethanol	BCF	3
CAS: 111-76-2	Pow Log	0.83
	Potential	Low
propan-2-ol	BCF	3
CAS: 67-63-0	Pow Log	0.05
	Potential	Low
2-methylisothiazol-3(2H)-one	BCF	
CAS: 2682-20-4	Pow Log	-0.49
	Potential	

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2-butoxyethanol	Koc	8	Henry	1.621E-1 Pa·m³/mol
CAS: 111-76-2	Conclusion	Very High	Dry soil	No
	Surface tension	2.729E-2 N/m (77 ºF)	Moist soil	Yes
propan-2-ol	Koc	1.5	Henry	8.207E-1 Pa·m³/mol
CAS: 67-63-0	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.24E-2 N/m (77 ºF)	Moist soil	Yes
2-methylisothiazol-3(2H)-one	Koc	Not applicable (N/A)	Henry	0E+0 Pa·m³/mol
CAS: 2682-20-4	Conclusion	Not applicable (N/A)	Dry soil	Not applicable (N/A)
	Surface tension	Not applicable (N/A)	Moist soil	Not applicable (N/A)

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Wastes generated by normal household activities (e.g., routine house and yard maintenance) are excluded from the definition of hazardous waste (Title 40 of the Code of Federal Regulations Part 261.4)

Waste management (disposal and evaluation):

Follow RCRA framework and EPA regulation for to ensure that hazardous waste is managed safely and properly.Waste should not be disposed of to drains. Remind, It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.See section 6 for further information about Accidental release measures.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Solid Wastes - Part 239 through 282.
State regulatory requirements for generators may be more stringent than those in the federal program. Be sure to check the state´s policies.

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SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- CALIFORNIA LABOR CODE - The Hazardous Substances List: *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)*
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Birth defects or other reproductive harm: Not applicable (N/A)
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Cancer: Not applicable (N/A)
- CANADA-Domestic Substances List (DSL): *White mineral oil, <=20.5mm2/s (40ºC) (8042-47-5)* ; *Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides (61789-77-3)* ; *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)* ; *2-methylisothiazol-3(2H)-one (2682-20-4)*
- CANADA-Non-Domestic Substances List (NDSL): Not applicable (N/A)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: *2-butoxyethanol (111-76-2) - 1 lb*
- Hazardous Air Pollutants (Clean Air Act): *2-butoxyethanol (111-76-2)*
- Massachusetts RTK - Substance List: *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)*
- Minnesota - Hazardous substances ERTK: *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)*
- New Jersey Worker and Community Right-to-Know Act: *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)*
- New York RTK - Substance list: *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)*
- NTP (National Toxicology Program): Not applicable (N/A)
- OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Not applicable (N/A)
- Pennsylvania Worker and Community Right-to-Know Law: *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)*
- Rhode Island - Hazardous substances RTK: *2-butoxyethanol (111-76-2)*
- The Toxic Substances Control Act (TSCA) : *White mineral oil, <=20.5mm2/s (40ºC) (8042-47-5)* ; *Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides (61789-77-3)* ; *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)* ; *2-methylisothiazol-3(2H)-one (2682-20-4)*
- Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): *2-butoxyethanol (111-76-2)* ; *propan-2-ol (67-63-0)*

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information provided in this safety data sheet as a foundation for conducting workplace-specific risk assessments. These assessments will help establish the appropriate risk prevention measures for handling, using, storing, and disposing of this product.

Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H317: May cause an allergic skin reaction.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Acute Tox. 2: H330 - Fatal if inhaled.
Acute Tox. 3: H301+H311 - Toxic if swallowed or in contact with skin.
Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2A: H319 - Causes serious eye irritation.
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
STOT SE 3: H336 - May cause drowsiness or dizziness.

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SECTION 16: OTHER INFORMATION (continued)

Advice related to training:

According to 29 CFR 1910. 1200, training on chemical hazards is necessary for employees using this product. This training will facilitate their understanding and interpretation of the safety data sheet, as well as the product label.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
IARC: International Agency for Research on Cancer

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END OF SAFETY DATA SHEET