

BIOTREAT 15359

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Substance key: 000000687847

Revision Date: 03/19/2020

Version : 1 - 1 / USA

Date of printing :04/15/2021

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704-331-7000
	Information of the substance/preparation: Product Stewardship, +1-704-331-7710
	Emergency tel. number: +1 800-424-9300(CHEMTREC)

Trade name: BIOTREAT 15359
Material number: 303383

Primary product use: Biocide
Chemical family: Mixture of Glutaraldehyde, Quaternary Ammonium Compounds, Ethanol and Non hazardous additions

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Acute toxicity (Oral) : Category 4
Acute toxicity (Inhalation) : Category 4
Skin corrosion : Category 1B
Serious eye damage : Category 1
Respiratory sensitisation : Category 1
Skin sensitisation : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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Precautionary statements

:

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P285 In case of inadequate ventilation wear respiratory protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 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/ doctor.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
C12-C16 Alkyldimethylbenzyl ammonium chloride	68424-85-1	5 - 10

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Glutaraldehyde	111-30-8	5 - 10
Ethanol	64-17-5	1 - 3

SECTION 4. FIRST AID MEASURES

- General advice : Remove/ Take off immediately all contaminated clothing.
Get medical advice/ attention if you feel unwell.
- If inhaled : Move the victim to fresh air.
Give oxygen or artificial respiration if needed.
Get immediate medical advice/ attention.
Never give anything by mouth to an unconscious person.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Get medical attention immediately if irritation develops and persists.
Wash contaminated clothing before reuse.
- In case of eye contact : Do not wear contact lenses.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get immediate medical advice/ attention.
- If swallowed : Rinse mouth.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Get medical advice/ attention.
Call your local Poison Control Center (In the U.S. call 1-800-222-1222).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Dry chemical
Carbon dioxide (CO₂)
Alcohol-resistant foam
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : In case of fires, hazardous combustion gases are formed:
Carbon monoxide (CO)

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Carbon dioxide (CO₂)

- Further information : In the event of fire and/or explosion do not breathe fumes. Emits toxic and corrosive fumes under fire conditions. Do not allow run-off from fire fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.
- Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.
- Methods and materials for containment and cleaning up : 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). Clean contaminated surface thoroughly. Incineration in suitable incineration plant, observing local authority regulations

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Keep away sources of ignition. Take precautionary measures against build-up of electrostatic charges, e.g. earthing during loading and off-loading operations.
- Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice. Use only with adequate ventilation/personal protection. For personal protection see section 8. Avoid contact with skin, eyes and clothing. Use only with adequate ventilation. Wash thoroughly after handling.
- Further information on storage conditions : Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Glutaraldehyde	111-30-8	C	0.2 ppm 0.8 mg/m ³	NIOSH REL
		C	0.2 ppm 0.8 mg/m ³	OSHA P0
		C	0.05 ppm	ACGIH
Ethanol	64-17-5	STEL	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m ³	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m ³	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m ³	OSHA P0

Engineering measures : Use only in area provided with appropriate exhaust ventilation.
Use engineering controls such as local or general exhaust to maintain airborne concentrations below exposure limits.

Personal protective equipment

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Hand protection

Material : butyl-rubber

Remarks : Nitrile rubber Neoprene

Eye protection : Wear safety glasses with side shields, chemical splash goggles, and /or full face shield to prevent contact with eyes.

Skin and body protection : Wear protective clothing, including long sleeves and gloves, to prevent skin contact.

Protective measures : Observe the usual precautions for handling chemicals.

Hygiene measures : Wash hands before breaks and at the end of workday.
Take off immediately all contaminated clothing and wash it before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid, clear

Colour : colourless to light yellow

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Odour	:	fruity
Odour Threshold	:	not available
pH	:	3.5 - 5.5
Melting point/freezing point	:	not available
Boiling point	:	> 200 °F / > 93 °C
Flash point	:	> 200.01 °F / > 93.34 °C
Evaporation rate	:	not available
Flammability (solid, gas)	:	not specified
Self-ignition	:	no data available
Upper explosion limit / upper flammability limit	:	not available
Lower explosion limit / Lower flammability limit	:	not available
Vapour pressure	:	not available
Relative vapour density	:	not available
Relative density	:	0.99 - 1.03
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	not available
Auto-ignition temperature	:	not available
Decomposition temperature	:	not available
Viscosity Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	2.38 mm ² /s (71.6 °F / 22.0 °C)

SECTION 10. STABILITY AND REACTIVITY

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Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	Keep away from heat and sources of ignition. Take precautionary measures against static discharges.
Incompatible materials	:	Incompatible with oxidizing agents.
Hazardous decomposition products	:	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

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

Skin contact
Eye contact
Inhalation
Ingestion

Acute toxicity**Product:**

Acute oral toxicity	:	Acute toxicity estimate: 1,246 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 0.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:**C12-C16 Alkyldimethylbenzyl ammonium chloride:**

Acute oral toxicity : LD50 (Rat): 330 mg/kg

Glutaraldehyde:

Acute oral toxicity	:	LD50 (Rat): 100 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 0.28 - 0.35 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Rabbit): > 1,000 mg/kg Assessment: The substance or mixture has no acute dermal

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toxicity

Ethanol:

- Acute oral toxicity : LD50 (Rat, male and female): 10,470 mg/kg
Method: OECD Test Guideline 401
GLP: no
- Acute inhalation toxicity : LC50 (Rat, male and female): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
GLP: no
- Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation**Components:****C12-C16 Alkyldimethylbenzyl ammonium chloride:**

Assessment: Causes burns.

Glutaraldehyde:

Assessment: Causes burns.

Ethanol:

Species: Rabbit
Exposure time: 24 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation**Components:****C12-C16 Alkyldimethylbenzyl ammonium chloride:**

Assessment: Risk of serious damage to eyes.

Glutaraldehyde:

Assessment: Risk of serious damage to eyes.

Ethanol:

Species: Rabbit
Result: Irritating to eyes.
Method: OECD Test Guideline 405

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GLP: No information available.

Respiratory or skin sensitisation**Components:****C12-C16 Alkyldimethylbenzyl ammonium chloride:**

Assessment: Harmful if swallowed., Causes severe skin burns and eye damage.

Glutaraldehyde:

Result: The product is a skin sensitizer, sub-category 1A.

Result: May cause sensitisation by inhalation.

Assessment: Causes severe skin burns and eye damage., Toxic if swallowed., Fatal if inhaled.
May cause an allergic skin reaction., May cause allergy or asthma symptoms or breathing difficulties if inhaled.**Ethanol:**Exposure routes: Dermal
Species: Mouse
Method: Other
Result: Not a skin sensitizer.
GLP: No information available.**Germ cell mutagenicity****Components:****Ethanol:**Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: No information available.

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: No information available.

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Method: OECD Test Guideline 473
Result: negative
GLP: No information available.

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Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Rat (male)
Strain: Other
Cell type: Bone marrow
Application Route: Drinking water
Method: OECD Test Guideline 474
Result: negative
GLP: No information available.

Germ cell mutagenicity - Assessment : It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

Carcinogenicity

Components:

Ethanol:

Species: Mouse, (female)
Application Route: Drinking water
Exposure time: 105 weeks
Dose: 0, 2.5 and 5% in drinking water
Group: yes
4,400 mg/kg bw/day
Method: OPPTS 870.4200
GLP: yes

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

IARC Not listed

OSHA Not listed

NTP Not listed

Reproductive toxicity

Components:

Ethanol:

Effects on fertility : Test Type: Two-generation study
Species: Mouse, male and female
Strain: CD1
Application Route: Drinking water
Dose: 5, 10 and 15% v/v in water
Duration of Single Treatment: 126 d
General Toxicity - Parent: NOAEL: 15 %
General Toxicity F1: NOAEL: 10 %
General Toxicity F2: NOAEL: < 15 %
Method: OECD Test Guideline 416
GLP: No information available.

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Effects on foetal development : Test Type: Pre-natal
Species: Rat, female
Strain: Sprague-Dawley
Application Route: Inhalation
Dose: 10000, 16000, 20000 ppm nom.
Duration of Single Treatment: 19 d
Frequency of Treatment: 1 daily
General Toxicity Maternal: NOAEL: 16,000 ppm
Teratogenicity: NOAEL: 20,000 ppm
Method: OECD Test Guideline 414
GLP: No information available.

Reproductive toxicity - Assessment : No reproductive toxicity to be expected.
No teratogenic effects to be expected.

STOT - single exposure**Components:****Glutaraldehyde:**

Assessment: May cause respiratory irritation.

Ethanol:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure**Components:****Glutaraldehyde:**

Remarks: no data available

Ethanol:

Remarks: no data available

Repeated dose toxicity**Components:****C12-C16 Alkyldimethylbenzyl ammonium chloride:**

Repeated dose toxicity - Assessment : Harmful if swallowed., Causes severe skin burns and eye damage.

Glutaraldehyde:

Repeated dose toxicity - Assessment : Causes severe skin burns and eye damage., Toxic if swallowed., Fatal if inhaled.

Ethanol:

Species: Rat, male and female

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LOAEL: ca. 3200 mg/kg
Application Route: oral (gavage)
Exposure time: 7 weeks or 14 weeks
Number of exposures: twice daily, 7 days a week
Dose: 5, 10, 20 ml/kg
Group: yes
Method: OECD Test Guideline 408
GLP: No information available.

Species: Rat, male
NOEL: > 20 mg/l
Application Route: inhalation (vapour)
Exposure time: 3, 6, 9, 26 day groups
Number of exposures: continuous
Dose: 20 mg/l
Group: yes
Method: Other
GLP: No information available.

Aspiration toxicity**Components:****Glutaraldehyde:**

No aspiration toxicity classification

Ethanol:

No aspiration toxicity classification

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****C12-C16 Alkyldimethylbenzyl ammonium chloride:**

M-Factor (Acute aquatic toxicity) : 10

M-Factor (Chronic aquatic toxicity) : 1

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Glutaraldehyde:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.8 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.1 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : LC50 (Desmodesmus subspicatus (green algae)): 0.6 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 0.025 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : Remarks: no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: no data available

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Ethanol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 15,300 mg/l
End point: mortality
Exposure time: 96 h
Test Type: flow-through test
Analytical monitoring: yes
Method: Other
GLP: No information available.

LC50 (Oncorhynchus mykiss (rainbow trout)): 11,200 mg/l
End point: mortality
Exposure time: 24 h
Test Type: flow-through test
Analytical monitoring: no
Method: Other
GLP: No information available.

Toxicity to daphnia and other : LC50 (Ceriodaphnia dubia (water flea)): 5,012 mg/l

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aquatic invertebrates		End point: mortality Exposure time: 48 h Test Type: static test Analytical monitoring: no Method: Other GLP: No information available.
		EC50 (Daphnia magna (Water flea)): > 10,000 mg/l End point: Immobilization Exposure time: 48 h Method: DIN 38412 GLP: no
Toxicity to algae/aquatic plants	:	EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
		EC10 (Chlorella vulgaris (Fresh water algae)): 11.5 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	:	NOEC (Danio rerio (zebra fish)): 250 mg/l End point: Other Exposure time: 120 h Test Type: semi-static test Method: OECD Test Guideline 212 GLP: No information available.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: no data available
Toxicity to microorganisms	:	EC50 (Natural microorganism): 5,800 mg/l Exposure time: 4 h Test Type: static test
Toxicity to soil dwelling organisms	:	Remarks: Not applicable
Plant toxicity	:	Remarks: Not applicable
Sediment toxicity	:	Remarks: Not applicable
Toxicity to terrestrial organisms	:	Remarks: Not applicable

Persistence and degradability**Components:****Glutaraldehyde:**

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Biodegradability : Result: Readily biodegradable.
Biodegradation: > 90 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

Ethanol:

Biodegradability : aerobic
Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

Bioaccumulative potential**Components:****Glutaraldehyde:**

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water : log Pow: -0.36
pH: 7

Ethanol:

Bioaccumulation : Bioconcentration factor (BCF): 0.66
Method: calculated
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: -0.35 (75 °F / 24 °C)
pH: 7.4
Method: OECD Test Guideline 107

Mobility in soil**Components:****Ethanol:**

Distribution among environmental compartments : adsorption
Medium: water - soil
Remarks: Not expected to adsorb on soil.

Other adverse effects**Product:**

Additional ecological information : No data is available on the product itself.

Components:**Ethanol:**

Results of PBT and vPvB : This substance is not considered to be persistent,

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assessment bioaccumulating and toxic (PBT).

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

RCRA - Resource Conservation and Recovery Act : This material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations

Waste Code : D002

Waste from residues : Dispose of this product in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Contaminated packaging material should be treated equivalent to residual chemicals. Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation.

SECTION 14. TRANSPORT INFORMATION**DOT Regulation:**UN/NA-number: UN 1903
Proper shipping name: Disinfectant, liquid, corrosive, n.o.s.
Technical Name: QUATERNARY AMMONIUM COMPOUND

Primary hazard class: 8
Packing group: II
Emergency Response Guide: 153**IATA**UN/ID number: UN 1903
Proper shipping name: Disinfectant, liquid, corrosive, n.o.s.
Hazard inducer(s): QUATERNARY AMMONIUM COMPOUND

Primary risk: 8
Packing group: II
Remarks: Shipment permitted**IMDG**

UN no.: UN 1903

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Proper shipping name: Disinfectant, liquid, corrosive, n.o.s.
Hazard inducer(s): QUATERNARY AMMONIUM COMPOUND

Primary risk: 8
Packing group: II
EmS: F-A S-B

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

A characteristic waste RQ of 100 lbs applies to this product in a waste form: D002

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 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitisation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act

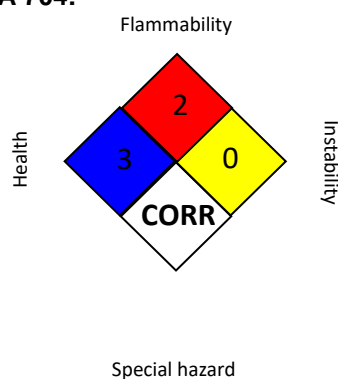
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption., This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

SECTION 16. OTHER INFORMATION**Further information****NFPA 704:****Full text of other abbreviations**

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / STEL	:	Short-term exposure limit
ACGIH / C	:	Ceiling limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / C	:	Ceiling value not be exceeded at any time.
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / C	:	Ceiling limit
OSHA Z-1 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; 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

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- 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 Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance 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

Observe all necessary precautions for handling corrosive liquids.

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