

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 05.14.2019

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Revision date: 02.08.2024

Bug Release

SECTION 1: Identification

Product Identifier

Product Name: Bug Release

Product code: C-1700

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: General Purpose Cleaner

Uses Advised Against: NA

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

Heiden Industries

1200 Veterans Blvd.

Kenner, LA. 70062

8008784913

TODD@HEIDENIND.COM

Emergency Telephone Number:

North America

CHEMTREC

800-424-9300 (24 hours)

SECTION 2: Hazard(s) Identification

GHS Classification:

Skin corrosion, category 1B

Serious eye damage, category 1

Carcinogenicity, category 2

Specific target organ toxicity - repeated exposure, category 2

Label elements

Hazard Pictograms:



Signal Word: Danger

Hazard statements:

H351 Suspected of causing cancer.

H373 May cause damage to organs.

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

Precautionary Statements:

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P202 Do not handle until all safety precautions have been read and understood
P280 Wear protective gloves/protective clothing/eye protection/face protection
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P264 Wash hands thoroughly after handling
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
P363 Wash contaminated clothing before reuse
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
P405 Store locked up
P501 It is the responsibility of the waste generator to characterize all waste material according to regulatory entities.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

| Identification | Name | Weight % |
|---------------------------|--|----------|
| CAS Number: 68515-73-1 | D-Glucopyranose, oligomers, decyl octyl glycosides | 1-70 |
| CAS Number: 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | <50 |
| CAS Number: 6834-92-0 | Disodium metasilicate | 1-30 |
| CAS Number: 1300-72-7 | Sodium Xylenesulfonate | 1-10 |
| CAS Number: 5064-31-3 | Trisodium nitrilotriacetate | <10 |
| CAS Number: 84133-50-6 | Alcohols, C12-14-secondary, ethoxylated | <10 |
| CAS Number: 61789-40-0 | 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | 1-15 |
| CAS Number: 25322-68-3 | Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | <0.3 |
| CAS Number: 75-21-8 | Ethylene oxide | <0.05 |
| CAS Number: 123-91-1 | 1,4-dioxane | <0.05 |
| CAS Number: 79-43-6 | Dichloroacetic acid | <0.027 |

Additional Information: None

SECTION 4: First Aid Measures

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Description of First Aid Measures

General Notes:

Not determined or not applicable.

After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention.

After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Immediately rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. Seek immediate medical attention, preferably from an ophthalmologist.

After Swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Exposure to skin may result in redness, pain, burning, inflammation and tissue damage. Exposure to eyes may result in irritation, redness, pain, inflammation, itching, burning, tearing, corneal damage and loss of vision. Exposure via inhalation may result in cough, sore throat, burning sensation and shortness of breath. Exposure via ingestion may result in burns of the mouth and throat, abdominal pain, burning sensation in the throat and chest, nausea, vomiting, shock or collapse.

Delayed Symptoms and Effects:

May cause damage to organs through prolonged or repeated exposure. Effects are dependent on exposure (dose, concentration, contact time).

Suspected of causing cancer. Effects are dependent on exposure (dose, concentration, contact time).

Immediate Medical Attention and Special Treatment

Specific Treatment:

In case of eye contact, seek prompt medical attention while rinsing is continued.

In case of skin contact, seek prompt medical attention while rinsing is continued.

In case of ingestion, seek prompt medical attention.

Notes for the Doctor:

Not determined or not applicable.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

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Thermal decomposition may produce irritating/toxic fumes/gases.

Special Protective Equipment for Firefighters:

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

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Respiratory protection may be necessary for spills greater than 5 gallons. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---------------------|------------|---|
| ACGIH | Dichloroacetic acid | 79-43-6 | 8-Hour TWA: 0.5 ppm |
| | Ethylene oxide | 75-21-8 | 8-Hour TWA: 1 ppm |
| | 1,4-dioxane | 123-91-1 | 8-Hour TWA: 20 ppm |
| NIOSH | Ethylene oxide | 75-21-8 | IDLH: 800 ppm |
| | Ethylene oxide | 75-21-8 | Ceiling Limit: 9 mg/m ³ (5 ppm [10-min/day]) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---------------------------|--|------------|--|
| | Ethylene oxide | 75-21-8 | REL-TWA: 0.18 mg/m ³ (0.1 ppm [up to 10 hr]) |
| | 1,4-dioxane | 123-91-1 | IDLH: 500 ppm |
| | 1,4-dioxane | 123-91-1 | Ceiling Limit: 3.6 mg/m ³ (1 ppm [30-min]) |
| OSHA | Ethylene oxide | 75-21-8 | 8-Hour TWA-PEL: 1 ppm |
| | Ethylene oxide | 75-21-8 | 15-Minute STEL: 5 ppm |
| | Ethylene oxide | 75-21-8 | 8-Hour TWA: 0.5 ppm (Action level) |
| | 1,4-dioxane | 123-91-1 | 8-Hour TWA-PEL: 360 mg/m ³ (100 ppm) |
| United States(California) | Ethylene oxide | 75-21-8 | 15-Minute STEL: 5 ppm |
| | Ethylene oxide | 75-21-8 | 8-Hour TWA-PEL: 2 mg/m ³ (1 ppm) |
| | Ethylene oxide | 75-21-8 | 8-Hour TWA: 0.5 ppm (Action level) |
| | 1,4-dioxane | 123-91-1 | 8-Hour TWA-PEL: 1 mg/m ³ (0.28 ppm) |
| WEEL | Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated | 25322-68-3 | 8-Hour TWA: 10 mg/m ³ (molecular weight >200 aerosol) |

Biological Limit Values:

| Country (Legal Basis) | Substance | Identifier | Determinant | Specimen | Sampling time | Permissible limits |
|-----------------------|----------------|------------|--|---------------------|---------------|--------------------|
| ACGIH | Ethylene oxide | 75-21-8 | N-(2-hydroxyethyl)-valine (HEV) hemoglobin adducts | Hemoglobin adducts | Not critical | 5000 pmol/g |
| | Ethylene oxide | 75-21-8 | S-(2-hydroxyethyl) mercapturic acid (HEMA) | Creatinine in urine | End of shift | 5 µg/g |

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Not determined or not applicable.

Skin and Body Protection:

Not determined or not applicable.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by

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recognized national standards (or equivalent) must be worn. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

| | |
|---|----------------------------------|
| Appearance | Liquid |
| Odor | Std. |
| Odor threshold | Not determined or not available. |
| pH | 10 |
| Melting point/freezing point | Not determined or not available. |
| Initial boiling point/range | Not determined or not available. |
| Flash point (closed cup) | Not determined or not available. |
| Evaporation rate | Not determined or not available. |
| Flammability (solid, gas) | Not determined or not available. |
| Upper flammability/explosive limit | Not determined or not available. |
| Lower flammability/explosive limit | Not determined or not available. |
| Vapor pressure | Not determined or not available. |
| Vapor density | Not determined or not available. |
| Density | Not determined or not available. |
| Relative density | Not determined or not available. |
| Solubilities | Not determined or not available. |
| Partition coefficient (n-octanol/water) | Not determined or not available. |
| Auto/Self-ignition temperature | Not determined or not available. |
| Decomposition temperature | Not determined or not available. |
| Dynamic viscosity | Not determined or not available. |
| Kinematic viscosity | Not determined or not available. |
| Explosive properties | Not determined or not available. |
| Oxidizing properties | Not determined or not available. |

SECTION 10: Stability and Reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to Avoid:

Avoid generation of aerosols and mists, extreme heat, open flames, hot surfaces, sparks, ignition sources

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and incompatible materials.

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible Materials:

None known.

Hazardous Decomposition Products:

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

SECTION 11: Toxicological Information

Acute Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

| Name | Route | Result |
|--|----------------|---|
| Trisodium nitrilotriacetate | oral | LD50 Rat: 1100 mg/kg |
| | dermal | LD50 Rabbit: >2000 mg/kg |
| | inhalation | LC50 Rat: >5 mg/L (4 hr - Aerosol) |
| D-Glucopyranose, oligomers, decyl octyl glycosides | oral | LD50 Rat: > 2000 mg/kg |
| | dermal | LD50 Rabbit: > 2000 mg/kg |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | oral | LD50 Rat: > 5000 mg/kg |
| | dermal | LD50 Rat: > 2000 mg/kg |
| Dichloroacetic acid | dermal | LD50 Rabbit: 797 mg/kg |
| | oral | LD50 Rat: 2820 mg/kg |
| Ethylene oxide | Inhalation ATE | LC50 Rat: 700 ppmV (4 hr (Gas)) |
| | Oral ATE | LD50 Rat: 100 mg/kg |
| Disodium metasilicate | dermal | LD50 Rat: > 5000 mg/kg |
| | oral | LD50 Rat: 1152 mg/kg |
| | inhalation | LC50 Rat: > 2.06 mg/L (4 hr [vapor]) |
| 1,4-dioxane | oral | LD50 Rat: 5150 mg/kg |
| | dermal | LD50 Rabbit: 7600 mg/kg |
| | inhalation | LC50 Rat: 9158 ppmV (4 hr - Vapor) |
| Alcohols, C9-11, branched and linear, ethoxylated | oral | LD50 Rat: 3488 mg/kg |
| | dermal | LD50 Rabbit: > 2000 mg/kg |
| | inhalation | LC50 Rat: >1.6 mg/m ³ (4 hr [aerosol]) |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | dermal | LD50 Rat: >2000 mg/kg |
| | oral | LD50 Rat: >2000 mg/kg |

Skin Corrosion/Irritation

Assessment:

Causes severe skin burns and eye damage.

Product Data:

No data available.

Substance Data:

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| Name | Result |
|--|---------------------------|
| Disodium metasilicate | Causes severe skin burns. |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | Causes skin irritation. |
| Dichloroacetic acid | Causes severe skin burns. |
| Ethylene oxide | Causes severe skin burns. |
| Alcohols, C12-14-secondary, ethoxylated | Causes skin irritation. |

Serious Eye Damage/Irritation

Assessment:

Causes serious eye damage.

Product Data:

No data available.

Substance Data:

| Name | Result |
|--|--------------------------------|
| Disodium metasilicate | Causes serious eye damage. |
| D-Glucopyranose, oligomers, decyl octyl glycosides | Causes serious eye damage. |
| Trisodium nitrilotriacetate | Causes serious eye irritation. |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | Causes serious eye irritation. |
| Sodium Xylenesulfonate | Causes serious eye irritation. |
| Dichloroacetic acid | Causes serious eye damage. |
| Ethylene oxide | Causes serious eye damage. |
| 1,4-dioxane | Causes serious eye irritation. |
| Alcohols, C9-11, branched and linear, ethoxylated | Causes serious eye damage. |
| Alcohols, C12-14-secondary, ethoxylated | Causes serious eye damage. |

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

| Name | Result |
|--|--------------------------------------|
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | May cause an allergic skin reaction. |

Carcinogenicity

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Suspected of causing cancer.

Product Data: No data available.

Substance Data:

| Name | Species | Result |
|-----------------------------|---------|---|
| Ethylene oxide | | May cause cancer. |
| Trisodium nitrilotriacetate | | Suspected of causing cancer. |
| 1,4-dioxane | | May cause cancer. 1,4-dioxane is characterized as "likely to be carcinogenic to humans." This characterization is based on the following findings: (1) inadequate evidence of carcinogenicity in humans, and (2) sufficient evidence in animals (i.e., hepatic tumors in multiple species [three strains of rats, two strains of mouse, and in guinea pigs] mesotheliomas of the peritoneum, mammary, and nasal tumors have also been observed in rats following 2 years of oral exposure to 1,4- dioxane). U.S. Environmental Protection Agency's Integrated Risk Information System (IRIS). |
| Dichloroacetic acid | | Suspected of causing cancer. |

International Agency for Research on Cancer (IARC):

| Name | Classification |
|--|----------------|
| D-Glucopyranose, oligomers, decyl octyl glycosides | Not Applicable |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | Not Applicable |
| Dichloroacetic acid | Group 2B |
| Ethylene oxide | Group 1 |
| Trisodium nitrilotriacetate | Group 2B |
| Disodium metasilicate | Not Applicable |
| Sodium Xylenesulfonate | Not Applicable |
| Alcohols, C9-11, branched and linear, ethoxylated | Not Applicable |
| 1,4-dioxane | Group 2B |
| Alcohols, C12-14-secondary, ethoxylated | Not Applicable |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | Not Applicable |

National Toxicology Program (NTP):

| Name | Classification |
|--|----------------|
| D-Glucopyranose, oligomers, decyl octyl glycosides | Not Applicable |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | Not Applicable |

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| Name | Classification |
|--|--|
| Dichloroacetic acid | Reasonably anticipated to be human carcinogens |
| Ethylene oxide | Known to be human carcinogens |
| Trisodium nitrilotriacetate | Not Applicable |
| Disodium metasilicate | Not Applicable |
| Sodium Xylenesulfonate | Not Applicable |
| Alcohols, C9-11, branched and linear, ethoxylated | Not Applicable |
| 1,4-dioxane | Reasonably anticipated to be human carcinogens |
| Alcohols, C12-14-secondary, ethoxylated | Not Applicable |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | Not Applicable |

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

| Name | Result |
|----------------|----------------------------|
| Ethylene oxide | May cause genetic defects. |

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

| Name | Result |
|---------------------|---|
| Ethylene oxide | May damage fertility. Suspected of damaging the unborn child. |
| Dichloroacetic acid | May damage fertility or the unborn child. |
| | May cause harm to breast-fed children. |

Specific Target Organ Toxicity (Single Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

| Name | Result |
|-----------------------|------------------------------------|
| Disodium metasilicate | May cause respiratory irritation. |
| Ethylene oxide | May cause respiratory irritation. |
| | May cause drowsiness or dizziness. |
| 1,4-dioxane | May cause respiratory irritation. |

Specific Target Organ Toxicity (Repeated Exposure)

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May cause damage to organs through prolonged or repeated exposure.

Product Data:

No data available.

Substance Data:

| Name | Result |
|---------------------|--|
| Ethylene oxide | Studies on the effects of Ethylene oxide have concluded not only neurotoxic symptoms in humans, but also measured effects on nerve conduction velocities indicative of sensorimotor neuropathy, and axonal degeneration observed in nerve biopsies of exposed workers. |
| Dichloroacetic acid | May cause damage to organs (brain, liver, testes) through prolonged or repeated exposure |

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Information on Likely Routes of Exposure:

No data available.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

No data available.

Other Information:

No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

| Name | Result |
|--|--|
| D-Glucopyranose, oligomers, decyl octyl glycosides | Fish LC50 Danio rerio: 100.81 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: > 100 mg/L (48 hr [mobility]) |
| | Aquatic Plants EC50 Desmodemus subspicatus: 27.22 mg/L (72 hr [growth rate]) |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | Fish LC50 Danio rerio: 2 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: 6.4 mg/L (48 hr [mobility]) |
| | Aquatic Plants EC50 Ulva lactuca: 30 mg/L (48 hr [biomass]) |
| Dichloroacetic acid | Fish LC50 Marine water fish: >2000 mg/L (96 h) |
| | Aquatic Plants EC50 Marine water algae: 148.2 mg/L (72 h [cell number]) |
| Ethylene oxide | Aquatic Plants EC50 Pseudokirchneriella subcapitata: 240 mg/L (96 h, read-across substance data) |
| | Aquatic Invertebrates LC50 Daphnia magna: 212 mg/L (48 h) |
| | Fish LC50 Pimephales promelas: 84 mg/L (96 h) |

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| Trisodium nitrilotriacetate | Fish LC50 Pimephales promelas: 114 mg/L (96 hr) |
| | Aquatic Plants EC50 Desmodemus subspicatus: >100 mg/L (72 hr [growth rate]) |
| | Aquatic Invertebrates EC50 Daphnia magna: 560 mg/L (96 hr [mortality]) |
| Disodium metasilicate | Aquatic Plants EC50 Freshwater algae: 207 mg/L (72 hr [biomass; read-across]) |
| | Fish LC50 Danio rerio: 210 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: 1700 mg/L (48 hr [read-across]) |
| Alcohols, C9-11, branched and linear, ethoxylated | Fish LC50 Oncorhynchus mykiss: 5 - 7 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: 2.5 mg/L (48 hr [mobility]) |
| | Aquatic Plants EC50 Raphidocelis subcapitata: 1.4 mg/L (96 hr [cell number]) |
| 1,4-dioxane | Fish LC50 Pimephales promelas: 9850 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: >1000 mg/L (48 hr) |
| | Aquatic Plants EC50 Pseudokirchneriella subcapitata: >1000 mg/L (72 hr) |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | Fish LC50 Poecilia reticulata: > 100 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: > 100 mg/L (48 hr [mobility]) |
| | Aquatic Plants EC50 Desmodemus subspicatus: >100 mg/L (72 hr [growth rate, Read-across substance data]) |

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

| Name | Result |
|--|--|
| D-Glucopyranose, oligomers, decyl octyl glycosides | Fish NOEC Danio rerio: 1.8 mg/L (28 d [read-across]) |
| | Aquatic Invertebrates NOEC Daphnia magna: 2 mg/L (21 d [read-across]) |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | Aquatic Invertebrates NOEC Daphnia magna: 0.9 mg/L (21 d [reproduction]) |
| Trisodium nitrilotriacetate | Aquatic Invertebrates LC50 Pagurus longicarpus: 1875 mg/L (7 d) |
| Alcohols, C9-11, branched and linear, ethoxylated | Fish NOEC Pimephales promelas: 0.28 mg/L (30 d [mortality, Read-across substance data]) |
| | Aquatic Invertebrates NOEC Daphnia magna: 0.77 mg/L (21 d [reproduction, Read-across substance data]) |
| 1,4-dioxane | Fish NOEC Pimephales promelas: 145 mg/L (32 d) |
| | Aquatic Invertebrates NOEC Daphnia magna: 1000 mg/L (21 d) |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | Fish NOEC Salt water fish: 13,671.586 mg/L (28 d [mortality]) |
| | Aquatic Invertebrates NOEC Daphnia magna: 17,475.27 mg/L (21 d [immobilisation, Read-across substance data]) |

Persistence and Degradability

Product Data: No data available.

Substance Data:

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| Name | Result |
|--|--|
| D-Glucopyranose, oligomers, decyl octyl glycosides | The substance is readily biodegradable in water. 100% degradation, measured by DOC removal, after 28 days. |
| Dichloroacetic acid | The substance is readily biodegradable. 93% degradation, measured by Oxygen consumption, after 15 days. |
| Ethylene oxide | Readily biodegradable (96% degradation after 28 days, measured by TOC removal). |
| Trisodium nitrilotriacetate | Substance is readily biodegradable. >95% degradation in water, measured by DOC removal, after 28 days. |
| Disodium metasilicate | The biodegradation studies are not applicable to inorganic substances. |
| 1,4-dioxane | Not readily biodegradable (< 10 % degradation after 29 days, measured by CO ₂ evolution). |
| Alcohols, C9-11, branched and linear, ethoxylated | The substance is readily biodegradable. 72% degradation in water, measured by inorganic C analysis, after 28 days (Read-across substance data).. |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | The substance is readily biodegradable. > 90% degradation (test mat. analysis), after 5 days. |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | The substance is readily biodegradable. 74.85% degradation in water, measured by O ₂ consumption, after 28 days. |

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

| Name | Result |
|--|---|
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | The substance is not expected to bioaccumulate significantly (estimated BCF: 70.79 L/kg). |
| Dichloroacetic acid | This substance has low potential for bioaccumulation. |
| Ethylene oxide | Low potential for bioaccumulation (logKow = -0.3). |
| Trisodium nitrilotriacetate | Bioaccumulation is not expected. BCF (aquatic species): 3 L/kg ww |
| Disodium metasilicate | The substance has low potential for bioaccumulation. |
| Alcohols, C9-11, branched and linear, ethoxylated | The substance has the potential to bioaccumulate (log Pow=3.3 - 3.73 & BCF= 237 L/kg, Read-across substance data). |
| 1,4-dioxane | Does not accumulate in aquatic organisms (mean BCF: 0.45). |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | The substance is not expected to bioaccumulate (log Pow=0.2 at 30 °C & BCF= 3.162 L/kg at 25 °C, basis- whole body w.w.). |

Mobility in Soil

Product Data: No data available.

Substance Data:

| Name | Result |
|--|---|
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | The substance is mobile to moderately mobile (experimental log Koc: 1.812 dimensionless; calculated Koc: 648 L/kg); therefore, moderate adsorption to soil can be expected. |

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| Name | Result |
|--|---|
| D-Glucopyranose, oligomers, decyl octyl glycosides | Substance is expected to be mobile (log Koc: 1.7); therefore, adsorption to soil is not expected. |
| Dichloroacetic acid | This substance will not adsorb at all to soils or sediments should these environmental compartments be exposed to it. |
| Trisodium nitrilotriacetate | The substance has a low potential for adsorption to soil and sediment. log Kp (sediment-water): 1.6 L/kg |
| Alcohols, C9-11, branched and linear, ethoxylated | The substance is moderately mobile, therefore, moderate adsorption to soil is expected (log Koc=2.7 - 3.5 at 25 °C, QSAR substance data). |
| 1,4-dioxane | Significant adsorption to solid soil phase is not expected (calculated log Koc: 0.51 at 25 °C). |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | The substance is mobile, therefore adsorption to soil is not expected (log Koc= 1.857 dimensionless at 25 °C). |

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment:

| | |
|--|---|
| Disodium metasilicate | The PBT assessment does not apply to inorganic substances. |
| D-Glucopyranose, oligomers, decyl octyl glycosides | The substance is not PBT. |
| Trisodium nitrilotriacetate | The substance is not PBT. |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | The substance is not PBT. |
| Dichloroacetic acid | The substance is not PBT. |
| Ethylene oxide | This substance is not PBT. |
| Alcohols, C9-11, branched and linear, ethoxylated | The substance is not PBT. |
| 1,4-dioxane | Under assessment as Persistent, Bioaccumulative and Toxic (PBT list). |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | The substance is not PBT. |

vPvB assessment:

| | |
|--|--|
| D-Glucopyranose, oligomers, decyl octyl glycosides | The substance is not vPvB. |
| Trisodium nitrilotriacetate | The substance is not vPvB. |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | The substance is not vPvB. |
| Dichloroacetic acid | The substance is not vPvB. |
| Ethylene oxide | This substance is not vPvB. |
| Disodium metasilicate | The vPvB assessment does not apply to this substance as it is inorganic. |

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| | |
|--|-----------------------------|
| Alcohols, C9-11, branched and linear, ethoxylated | The substance is not vPvB. |
| 1,4-dioxane | This substance is not vPvB. |
| Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated | The substance is not vPvB. |

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

It is the responsibility of the waste generator to characterize all waste material according to regulatory entities.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

| | |
|-------------------------------|---------------|
| UN Number | Non-Regulated |
| UN Proper Shipping Name | Not regulated |
| UN Transport Hazard Class(es) | None |
| Packing Group | None |
| Environmental Hazards | None |
| Special Precautions for User | None |

International Maritime Dangerous Goods (IMDG)

| | |
|-------------------------------|---------------|
| UN Number | Not regulated |
| UN Proper Shipping Name | Not regulated |
| UN Transport Hazard Class(es) | None |
| Packing Group | None |
| Environmental Hazards | None |
| Special Precautions for User | None |

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

| | |
|-------------------------------|---------------|
| UN Number | Not regulated |
| UN Proper Shipping Name | Not regulated |
| UN Transport Hazard Class(es) | None |
| Packing Group | None |
| Environmental Hazards | None |
| Special Precautions for User | None |

SECTION 15: Regulatory Information

United States Regulations

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Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances:

| | | |
|---------|----------------|--------|
| 75-21-8 | Ethylene oxide | Listed |
|---------|----------------|--------|

SARA Section 313 Toxic Chemicals:

| | | |
|-----------|-----------------------------|--------|
| 75-21-8 | Ethylene oxide | Listed |
| 5064-31-3 | Trisodium nitrilotriacetate | Listed |
| 123-91-1 | 1,4-dioxane | Listed |

CERCLA:

| | | | |
|----------|----------------|--------|---------|
| 75-21-8 | Ethylene oxide | Listed | 10 lbs |
| 123-91-1 | 1,4-dioxane | Listed | 100 lbs |

RCRA:

| | | | |
|----------|----------------|--------|------|
| 75-21-8 | Ethylene oxide | Listed | U115 |
| 123-91-1 | 1,4-dioxane | Listed | U108 |

Section 112(r) of the Clean Air Act (CAA):

| | | |
|---------|----------------|--------|
| 75-21-8 | Ethylene oxide | Listed |
|---------|----------------|--------|

Massachusetts Right to Know:

| | | |
|-----------|-----------------------------|--------|
| 75-21-8 | Ethylene oxide | Listed |
| 5064-31-3 | Trisodium nitrilotriacetate | Listed |
| 123-91-1 | 1,4-dioxane | Listed |

New Jersey Right to Know:

| | | |
|----------|---------------------|--------|
| 79-43-6 | Dichloroacetic acid | Listed |
| 75-21-8 | Ethylene oxide | Listed |
| 123-91-1 | 1,4-dioxane | Listed |

New York Right to Know:

| | | |
|----------|---------------------|--------|
| 79-43-6 | Dichloroacetic acid | Listed |
| 75-21-8 | Ethylene oxide | Listed |
| 123-91-1 | 1,4-dioxane | Listed |

Pennsylvania Right to Know:

| | | |
|----------|----------------|--------|
| 75-21-8 | Ethylene oxide | Listed |
| 123-91-1 | 1,4-dioxane | Listed |

California Proposition 65:

⚠️WARNING: This product can expose you to 1,4-dioxane; which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

⚠️WARNING: This product can expose you to chemicals including Dichloroacetic acid and Ethylene oxide; which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in

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this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-0-0

HMIS: 0-0-0

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End of Safety Data Sheet