

SAFETY DATA SHEET

Preparation Date: 6/20/2017

Revision Date: 6/20/2017

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: GL140
Product Name: GLUTARALDEHYDE, 24 PERCENT AQUEOUS SOLUTION

Other means of identification

Synonyms: No information available
CAS #: Mixture
RTECS # Not available
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000.

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300

Contact Person: Martin LaBenz (West Coast)

Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

| | |
|---|---------------------------|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Skin corrosion/irritation | Category 1 Sub-category B |
| Serious eye damage/eye irritation | Category 1 |
| Respiratory sensitization | Category 1 |
| Skin sensitization | Category 1 |
| Category 1 | |

Label elements

Danger

Hazard statements

Causes severe skin burns and eye damage
 Harmful if swallowed
 May be harmful if inhaled
 May cause allergy or asthma symptoms or breathing difficulties if inhaled

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May cause an allergic skin reaction
May be corrosive to metals



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Toxic to aquatic life with long lasting effects

Toxic to aquatic life

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

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

Wear respiratory protection

Contaminated work clothing must not be allowed out of the workplace

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician

Absorb spillage to prevent material damage

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

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

Wash contaminated clothing before reuse

Immediately call a POISON CENTER or doctor/physician

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

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

Store in corrosive resistant/ .? container with a resistant inner liner

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight % |
|----------------|-----------|-----------|
| Water | 7732-18-5 | 75.5-76.5 |
| Glutaraldehyde | 111-30-8 | 23.5-24.5 |

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.
- Eye Contact:** Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

- Symptoms** Severe skin and eye irritation or burns. May cause sensitization by inhalation and skin contact. May affect the liver. It may affect the kidneys. May cause abdominal pain, nausea, vomiting, diarrhea. May cause coughing and shortness of breath. Causes digestive (gastrointestinal) tract irritation. May cause gastrointestinal (digestive) tract burns. Can burn mouth, throat, and stomach. May cause central nervous system effects. May cause cardiovascular effects.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

- Suitable Extinguishing Media:** The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.
- Unsuitable Extinguishing Media:** No information available.
- Specific hazards arising from the chemical**
- Hazardous Combustion Products:** No information available.
- Specific hazards:** No information available.

Special Protective Actions for Firefighters

| | |
|---|---|
| Specific Methods: | No information available. |
| Special Protective Equipment for Firefighters: | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear |

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Prevent product from entering drains. Do not let this chemical enter the environment.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Dilute with water. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep refrigerated. Keep at temperatures between 2 and 8 °C. Store away from incompatible materials. Store in a segregated and approved area. May corrode metallic surfaces. Do not store in uncoated metallic containers. Do not store in Aluminum, Carbon steel, Copper, Mild steel or Iron containers.

Incompatible Materials:

Bases
Oxidizing agents
Strong acids
Amines
Alcohols
Ammonia
Ketones

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

| Components | CAS-No. | OSHA | NIOSH | ACGIH | AIHA WHEEL |
|----------------|-----------|------|--|------------------|------------|
| Water | 7732-18-5 | None | None | None | None |
| Glutaraldehyde | 111-30-8 | None | 0.2 ppm Ceiling 0.8 mg/m ³ Ceiling | 0.05 ppm Ceiling | None |

Canada

| Components | CAS-No. | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|----------------|-----------|---|---------------------------|--|---|
| Water | 7732-18-5 | None | None | None | None |
| Glutaraldehyde | 111-30-8 | 0.05 ppm Ceiling 0.2 mg/m ³ Ceiling | 0.05 ppm Ceiling | 0.05 ppm Ceiling activated and inactivated | 0.1 ppm Ceiling 0.41 mg/m ³ Ceiling |

Australia and Mexico

| Components | CAS-No. | Australia | Mexico |
|----------------|-----------|-----------|--|
| Water | 7732-18-5 | None | None |
| Glutaraldehyde | 111-30-8 | None | 0.2 ppm Ceiling 0.7 mg/m ³ Ceiling |

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined areas. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles or Face-shield
- Skin and body protection:** Chemical resistant apron
Long sleeved clothing
Gloves
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Liquid

Appearance:

Clear.

Color:

Colorless.

Odor:

No information available.

Taste

No information available.

Formula:

No information available

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| | | |
|---|---|--|
| Molecular/Formula weight: No information available | Flammability: Not flammable | Flashpoint (°C/°F): No information available. |
| Flash Point Tested according to: Not available | Autoignition Temperature (°C/°F): No information available | Lower Explosion Limit (%): No information available |
| Upper Explosion Limit (%): No information available | Melting point/range(°C/°F): No information available | Decomposition temperature(°C/°F): No information available |
| Boiling point/range(°C/°F): 101 °C/213.8 °F | Bulk density: No information available | Density (g/cm3): No information available |
| Specific gravity: 1.06 | pH: No information available | Vapor pressure @ 20°C (kPa): No information available |
| Evaporation rate: No information available | Vapor density: 1.05 | VOC content (g/L): No information available |
| Odor threshold (ppm): No information available | Partition coefficient (n-octanol/water): No information available | Viscosity: No information available |
| Miscibility: No information available | Solubility: Completely soluble in water | |

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Incompatible materials.

Incompatible Materials: Bases
Oxidizing agents
Strong acids
Amines
Alcohols
Ammonia
Ketones

Hazardous decomposition products: Carbon oxides.

Other Information

Corrosivity: Avoid contact with metals such as Aluminum, Carbon steel, Copper, Iron, or Mild steel

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

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Principal Routes of Exposure:
Ingestion. Inhalation. Eyes. Skin.

Acute Toxicity

Component Information

| | |
|---------|-----------|
| Water | |
| CAS-No. | 7732-18-5 |

LD50/oral/rat = > 90 mL/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

| | |
|----------------|----------|
| Glutaraldehyde | |
| CAS-No. | 111-30-8 |

LD50/oral/rat = 252 mg/kg Oral LD50 Rat (LOLI); 140 mg/kg (RTECS)
LD50/oral/mouse = 231 mg/kg (RTECS); 134 mg/kg (RTECS)
LD50/dermal/rabbit = 560 µL/kg Dermal LD50Rabbit
LD50/dermal/rat = >2500 mg/kg (RTECS)
LC50/inhalation/rat = 0.1 mg/L Inhalation LC50 Rat 4 h; .480 mg/l 4 h (RTECS); 24-5000 ppm 4 h (LOLI)
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Corrosive. Causes severe irritation and burns. May cause staining of the skin and nails to a brown or golden brown color. It may be absorbed through the skin.

Eye Contact: Causes severe irritation and burns.

Inhalation Harmful by inhalation. Irritating to respiratory system. May cause headache, nausea, vomiting. Symptoms may include coughing and shortness of breath. Symptoms may include coughing, chest pain, difficulty breathing. It may affect the cardiovascular system (rapid heart beat (tachycardia), palpitations).

Ingestion Harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. May cause digestive (gastrointestinal) tract burns. Corrosive to the mouth, throat, and stomach. It causes irritation or a burning sensation of the mouth and throat. May cause a burning sensation in the mouth, chest, and stomach. May cause abdominal pain, nausea, vomiting, diarrhea. It may affect the kidneys and liver. May affect behavior/central nervous system (somnolence, ataxia). May affect behavior/central nervous system (dizziness, drowsiness). May cause headache. It may cause twitching or tremors. May affect behavior/central nervous system (convulsions, seizures). May affect behavior/central nervous system (depression or excitement).

Aspiration hazard No information available.

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

Chronic Toxicity Skin: Sensitizer. May cause allergic skin reaction (allergic contact dermatitis). Prolonged or repeated inhalation may cause allergic reaction. Prolonged or repeated inhalation may cause asthma-like allergy and asthma attacks with shortness of breath, difficulty breathing, wheezing, coughing, and/or chest tightness. Prolonged or repeated ingestion may affect the liver, and kidneys. Prolonged or repeated ingestion may affect the blood (normocytic anemia).

Sensitization: May cause sensitization by inhalation and skin contact.

Mutagenic Effects: For Glutaraldehyde:
Mutations in microorganisms
Experiments with bacteria and/or yeast have shown mutagenic effects
Mutagenic effects in mammalian somatic cells
Sister Chromatid Exchange: Hamster ovary (RTECS)

Carcinogenic effects: Not considered carcinogenic.

| Components | CAS-No. | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|----------------|-----------|------------|---|------------|------------------------|--|--|
| Water | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |
| Glutaraldehyde | 111-30-8 | Not listed | A4 Not Classifiable as a Human Carcinogen | Not listed | Not listed | Not listed | Not listed |

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

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

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data
There are no adequate and well-controlled studies in humans. Data in humans were insufficient to evaluate the effects on reproduction

Developmental Effects: No information available

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Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Glutaraldehyde - 111-30-8

Freshwater Algae Data: 0.61 mg/L EC50 *Desmodesmus subspicatus* 72 h 0.84 mg/L EC50 *Desmodesmus subspicatus* 96 h

Freshwater Fish Species Data: 7.8 - 22 mg/L LC50 *Lepomis macrochirus* 96 h static 1 2.6 - 4.8 mg/L LC50 *Oncorhynchus mykiss* 96 h flow-through 1 7.8 - 13 mg/L LC50 *Oncorhynchus mykiss* 96 h static 1 5.4 mg/L LC50 *Pimephales promelas* 96 h static 1

Water Flea Data: 14 mg/L EC50 *Daphnia magna* 48 h 0.56 - 1.0 mg/L EC50 *Daphnia magna* 48 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

| Components | CAS-No. | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|----------------|-----------|------------------------|------------------------|------------------------|------------------------|
| Water | 7732-18-5 | None | None | None | None |
| Glutaraldehyde | 111-30-8 | None | None | None | None |

14. TRANSPORT INFORMATION

DOT

UN-No: UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
Hazard Class: 8
Subsidiary Class No information available
Packing group: III
Emergency Response Guide Number 153
Marine Pollutant Severe Marine Pollutant
DOT RQ (lbs): No information available
Special Provisions IB3, T7, TP1, TP28

Product code: GL140

Product name: GLUTARALDEHYDE,
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Symbol(s): No information available
Description: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), 8, III

TDG (Canada)

UN-No: UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant
Description: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), 8, III

ADR

UN-No: UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
Hazard Class: 8
Packing Group: III
Subsidiary Risk: No information available
Special Provisions 274
Description: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), 8, III, ENVIRONMENTALLY HAZARDOUS

IMO / IMDG

UN-No: UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No information available
EMS: F-A
Special Provisions 223, 274
Description UN3265, Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE), 8, III, Marine pollutant

RID

UN-No: UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Special Provisions 274
Description: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), 8, III, ENVIRONMENTALLY HAZARDOUS

ICAO

UN-No: UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Description: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), 8, III
Special Provisions A3

IATA

UN-No: UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III

ERG Code: 8L
Special Provisions No information available
Description: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), 8, III

15. REGULATORY INFORMATION

International Inventories

| Components | CAS-No. | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | CHINA | Australia (AICS) | EINECS-No. |
|----------------|-----------|-----------|---------------------|---------------------|--------------------|---------|------------------|----------------------|
| Water | 7732-18-5 | Present | Present KE-35400 | Present | Not present | Present | Present | Present 231-791-2 |
| Glutaraldehyde | 111-30-8 | Present | Present KE-27969 | Present | Present (2)-509 | Present | Present | Present 203-856-5 |

U.S. Regulations

Glutaraldehyde

- Massachusetts RTK: Present
- New Jersey RTK Hazardous Substance List: 0960
- Pennsylvania RTK: Present
- Minnesota - Hazardous Substance List: Present
- California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 172.230, 21 CFR 173.320, 21 CFR 173.357
FDA - 21 CFR - Total Food Additives 172.230, 173.320, 173.357, 175.105, 176.170, 176.180, 176.300

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

| Components | CAS-No. | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|----------------|-----------|------------|------------------------|----------------------------|-------------------------------|
| Water | 7732-18-5 | Not Listed | Not Listed | Not Listed | Not Listed |
| Glutaraldehyde | 111-30-8 | Not Listed | Not Listed | Not Listed | Not Listed |

CERCLA/SARA

| Components | CAS-No. | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting de minimis |
|----------------|-----------|---|---|--|---------------------------------|------------------------------------|
| Water | 7732-18-5 | None | None | None | None | None |
| Glutaraldehyde | 111-30-8 | None | None | None | None | None |

U.S. TSCA

| Components | CAS-No. | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|----------------|-----------|---|--|
| Water | 7732-18-5 | Not Applicable | Not Applicable |
| Glutaraldehyde | 111-30-8 | Not Applicable | 09/30/199106/30/1998 |

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Water
7732-18-5 (75.5-76.5)
Glutaraldehyde
111-30-8 (23.5-24.5)

WHMIS 2015 Hazard Classification
Not a dangerous product according to HPR classification criteria

Acute toxicity - Oral - Category 3: H301 Toxic if swallowed.; Acute toxicity - Inhalation - Category 2: H330 Fatal if inhaled.; Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.; Respiratory sensitizers - Category 1B: H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.; Skin sensitizers - Category 1A: H317 May cause allergic skin reaction.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

E Corrosive material
D2B Toxic materials
D1B Toxic materials

Components

Water

Glutaraldehyde

WHMIS 1988

Uncontrolled product according to WHMIS classification criteria
D1A,D2B,E

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

| Components | WHMIS Ingredient Disclosure List - |
|----------------|------------------------------------|
| Glutaraldehyde | 1 % |

Inventory

| Components | CAS-No. | Canada (DSL) | Canada (NDSL) |
|----------------|-----------|--------------|---------------|
| Water | 7732-18-5 | Present | Not Listed |
| Glutaraldehyde | 111-30-8 | Present | Not Listed |

| Components | CAS-No. | CEPA Schedule I - Toxic Substances |
|----------------|-----------|---|
| Water | 7732-18-5 | Not listed |
| Glutaraldehyde | 111-30-8 | Not listed |
| Components | CAS-No. | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
| Water | 7732-18-5 | Not listed |
| Glutaraldehyde | 111-30-8 | Not listed |

EU Classification

EU GHS - SV - CLP 172/2008

| Components | CAS-No. | EU GHS - SV - CLP (172/2008) |
|----------------|-----------|---|
| Water | 7732-18-5 | |
| Glutaraldehyde | 111-30-8 | Acute toxicity - Oral - Acute Tox. 3: H301 Toxic if swallowed.; Acute toxicity - Inhalation - Acute Tox. 2: H330 Fatal if inhaled.; Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage.; Respiratory sensitizers - Resp. Sens. 1: H334 May cause allergic or asthmatic symptoms or |

| | | |
|--|--|--|
| | | breathing difficulties if inhaled.; Skin sensitizers - Skin Sens. 1A: H317 May cause allergic skin reaction.; Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation. (0.5 % ≤ C <5 %); Hazardous to aquatic environment - acute hazard - Aquatic Acute 1: H400 Very toxic to aquatic life. (M Factor: 1); Hazardous to aquatic environment - chronic hazard - Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (M Factor: 1); Supplemental Hazards: EUH071 Corrosive to respiratory tract.605-022-00-X Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation. (0.5 % ≤ C <5 %)605-022-00-X |
|--|--|--|

EU - CLP (1272/2008)

R-phrase(s)

not determined (not applicable)

S -phrase(s)

none

| Components | CAS-No. | Classification | Concentration Limits: | Safety Phrases |
|----------------|-----------|---|---|-----------------------------------|
| Water | 7732-18-5 | | No information | |
| Glutaraldehyde | 111-30-8 | T; R23/25 C; R34 R42/43 N; R50 | 50%≤C T; R25 2%≤C<50% Xn; R22 25%≤C T; R23 2%≤C<25% Xn; R20 10%≤C C; R34 2%≤C<10% Xi; R37/38-41 0.5%≤C<2% Xi; R36/37/38 0.5%≤C R43 | S: (1/2)-26-36/36/39-45-6 1 |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

None.

16. OTHER INFORMATION

Preparation Date: 6/20/2017
Revision Date: 6/20/2017
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may

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End of Safety Data Sheet