

4. FIRST AID MEASURES

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|---------------------------|--|
| General advice | IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. |
| Eye contact | In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| Skin contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Inhalation | Move to fresh air. Get medical attention immediately if symptoms occur. |
| Ingestion | Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention. Never give anything by mouth to an unconscious person. |
| Notes to physician | Treat symptomatically. |

5. FIRE-FIGHTING MEASURES

| | |
|---------------------------------------|--|
| Flash point: | Does not flash |
| Suitable Extinguishing Media | Use CO2, dry chemical, or foam. |
| Unsuitable Extinguishing Media | Do not use a solid water stream as it may scatter and spread fire. |
| Hazardous Combustion Products | Hazardous decomposition products due to incomplete combustion. |

Specific hazards arising from the chemical
May form peroxides of unknown stability.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health Hazard - 1** **Flammability - 1** **Stability - 0**

6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------------------|--|
| Personal precautions | Use personal protective equipment. For personal protection see section 8. |
| Methods for Containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. |
| Other information | See Section 12 for additional information. |

7. HANDLING AND STORAGE

| | |
|--------------------------------|---|
| Advice on safe handling | Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling. |
|--------------------------------|---|

Technical measures/Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Storage separately from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | ACGIH TLV | AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs | OSHA PEL | Advisory OEL |
|-------------------------------|-----------|---|----------|--------------|
| Diethylene glycol 111-46-6 | | TWA: 10 mg/m ³ | | |

Occupational Exposure Controls

Engineering Measures

Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

Personal Protective Equipment

General Information

These recommendations apply to the product as supplied.

Respiratory protection

Use only with adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Eye/Face Protection

Safety glasses with side-shields.

Skin and body protection

Wear suitable protective clothing.

Hand Protection

Chemical resistant gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid

ph 3.1

Flash point: Does not flash

Boiling point/boiling range > 100 °C

Vapor Pressure 1.3 mbar @ 20 °C

Vapor density 3.66

Density 1.18 g/cm³

Water Solubility completely soluble

Melting point/range: -7 °C

Specific Gravity 1.12

Bulk Density: No information available

Odor Slight

Color clear orange

Autoignition temperature: No information available

10. STABILITY AND REACTIVITY

Stability

May form explosive peroxides.

Incompatible products

Strong oxidizing agents. Strong acids. Strong bases. Sodium hydroxide.

Conditions to Avoid

Heat, flames and sparks.

Hazardous Decomposition Products None under normal use.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity - Product Information

Skin May cause irritation.

Eyes May cause irritation.

Inhalation Expected to be a low hazard for recommended handling.

Ingestion Harmful if swallowed. May cause adverse kidney effects. May cause central nervous system effects.

Acute toxicity - Component Information

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------|--|------------------------|-----------------|
| Diethylene glycol | 12565 mg/kg (Rat) | 11890 mg/kg (Rabbit) | |
| Chemical Name | Other applicable information | | |
| Diethylene glycol | Mild skin irritation - Moderate skin irritation Mild eye irritation Can cause kidney damage and CNS effects following ingestion. Repeated oral exposure to high doses can cause liver damage. | | |

Subchronic toxicity No information available

Chronic toxicity May cause adverse liver effects. May cause adverse kidney effects.

Carcinogenicity Contains no ingredient listed as a carcinogen.

Target Organ Effects Central nervous system, Kidney, Liver.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects .

Component Information

| Chemical Name | Toxicity to algae | Toxicity to fish | Toxicity to daphnia and other aquatic invertebrates |
|-------------------|-------------------|---|---|
| Diethylene glycol | | LC50= 75200 mg/L Pimephales promelas 96 h | EC50 = 84000 mg/L 48 h (Daphnia magna) |

Persistence and degradability Expected to be readily biodegradable

Bioaccumulation: - No information available

Mobility - No information available

| Chemical Name | log Pow |
|-------------------|---------|
| Diethylene glycol | -1.98 |

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations.

Contaminated packaging Do not re-use empty containers. Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

DOT Not regulated

TDG Not regulated

ICAO/IATA Not regulated

IMDG/IMO Not regulated

For transportation information, go to: <http://ship.carestreamhealth.com>.

15. REGULATORY INFORMATION

"Does not comply" indicates a component is either not on the public inventory or is subject to exemption requirements. If additional information is needed contact Carestream Health.

International Inventories

| | |
|----------------------|----------|
| TSCA | Complies |
| DSL/NDL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | Complies |
| IECSC | Complies |
| KECL | Complies |
| PICCS | Complies |
| AICS | Complies |
| NZIoC | Complies |

Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

| Chemical Name | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|------------------------------|-----------|---------------|-------------------------|-------------------------|
| Diethylene glycol - 111-46-6 | | Group I | | |

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

TSCA

This product does not contain any chemicals regulated under TSCA Section 4, Section 5(a), Section 8(a) or Section 8(d).

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|---------------|------------|--------------|----------|--------------|
| Diethylene glycol | | | X | | X |

International Regulations

Mexico - Grade

Slight risk, Grade 1

16. OTHER INFORMATION

Disclaimer for Label

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

- Contains:

May form explosive peroxides. Harmful if swallowed. May cause adverse kidney effects. May cause central nervous system depression. May cause adverse liver effects.

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling.

Additional information is given in the Material Safety Data Sheet.

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text
