# SAFETY DATA SHEET

**Preparation Date:** 11/08/2019 **Revision date** 11/08/2019 **Revision Number:** G1

## 1. IDENTIFICATION

**Product identifier**

**Product code:** TR125
**Product Name:** TRITON(R) X-45

**Other means of identification**
**Synonyms:** Polyethylene glycol octylphenyl ether
Poly(oxy-1,2-ethanediyl),
alpha-[4-(1,1,3,3-tetramethylbutyl)phenyl]-omega-hydroxy-
Glycols, polyethylene, mono[p-1,1,3,3-tetramethylbutyl)phenyl]ether
**CAS #:** 9002-93-1
**RTECS #** YM0616666
**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:** Tom Tyner (USA - West Coast)
**Contact Person:** Ibad Tirmiz (USA - East Coast)

## 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous by 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 |
| Serious eye damage/eye irritation | Category 2 |

**Label elements**

**Warning**

**Hazard statements**
Harmful if swallowed
Causes serious eye irritation

**Hazards not otherwise classified (HNOC)**
Not Applicable

**Other hazards**
Not available

**Precautionary Statements - Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear eye/face protection

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell
Rinse mouth

**Precautionary Statements - Disposal**
Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No | Weight-% |
|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | >=97.0 |
| Polyethylene Glycol | 25322-68-3 | <=3.0 |
| 1,4-Dioxane | 123-91-1 | <0.002 |
| Ethylene oxide | 75-21-8 | <0.001 |
| Formaldehyde | 50-00-0 | <0.0005 |
| Acetaldehyde | 75-07-0 | <0.0005 |

## 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.

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

**Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Causes serious eye irritation
May cause respiratory irritation
Nose and throat irritation
Mild to moderate skin irritation

**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:** Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

### Specific hazards arising from the chemical

**Hazardous combustion products** Carbon Monoxide, Carbon Dioxide.

**Specific hazards** May be combustible at high temperatures. May be ignited by heat, sparks or flames.

### Special Protective Actions for Firefighters

**Specific Methods:** Water mist may be used to cool closed containers For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out

**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. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** 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. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapors or spray mist. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**
Acids
Oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**National occupational exposure limits**

**United States**

| Component | CAS No | **OSHA** | **NIOSH** | **ACGIH** | **AIHA WEEL** |
|---|---|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | Not determined | Not determined | Not determined | Not determined |
| Polyethylene Glycol | 25322-68-3 | None | None | None | 10 mg/m³ TWA |
| 1,4-Dioxane | 123-91-1 | 100 ppm TWA<br>360 mg/m³ TWA | 1 ppm Ceiling 30 min<br>3.6 mg/m³ Ceiling 30 min | 20 ppm TWA | None |
| Ethylene oxide | 75-21-8 | 1 ppm TWA<br>5 ppm STEL | 0.1 ppm TWA<br>0.18 mg/m³ TWA<br>5 ppm Ceiling 10 min/day<br>9 mg/m³ Ceiling 10 min/day | 1 ppm TWA | None |
| Formaldehyde | 50-00-0 | 0.75 ppm TWA<br>2 ppm STEL | 0.016 ppm TWA<br>0.1 ppm Ceiling 15 min | 0.3 ppm STEL<br>0.1 ppm TWA | None |
| Acetaldehyde | 75-07-0 | 200 ppm TWA<br>360 mg/m³ TWA | None | = 25 ppm Ceiling | None |

**Canada**

| Component | CAS No | **Canada - Alberta** | **Canada - British Columbia** | **Canada - Ontario** | **Canada - Quebec** |
|---|---|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | None | None | None | None |
| Polyethylene Glycol | 25322-68-3 | None | None | None | None |
| 1,4-Dioxane | 123-91-1 | 20 ppm TWA<br>72 mg/m³ TWA | 20 ppm TWA | None | 20 ppm TWAEV<br>72 mg/m³ TWAEV |
| Ethylene oxide | 75-21-8 | 1 ppm TWA<br>1.8 mg/m³ TWA | 0.1 ppm TWA<br>1 ppm STEL | 1 ppm TWA<br>1.8 mg/m³ TWA<br>10 ppm STEL<br>18 mg/m³ STEL | 1 ppm TWAEV<br>1.8 mg/m³ TWAEV |
| Formaldehyde | 50-00-0 | 1 ppm Ceiling<br>1.3 mg/m³ Ceiling<br>0.75 ppm TWA<br>0.9 mg/m³ TWA | 0.3 ppm TWA<br>1 ppm Ceiling | 1.5 ppm Ceiling<br>1 ppm STEL | 2 ppm Ceiling<br>3 mg/m³ Ceiling |

| | | | | | |
|---|---|---|---|---|---|
| Acetaldehyde | 75-07-0 | = 25 ppm Ceiling<br>= 45 mg/m³ Ceiling | = 25 ppm Ceiling | 25 ppm Ceiling | 25 ppm Ceiling<br>45 mg/m³ Ceiling |

**Australia and Mexico**

| Component | CAS No | **Australia** | **Mexico** |
|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | None | None |
| Polyethylene Glycol | 25322-68-3 | None | None |
| 1,4-Dioxane | 123-91-1 | 10 ppm TWA<br>36 mg/m³ tWA | 25 ppm TWA<br>90 mg/m³ TWA<br>100 ppm STEL<br>360 mg/m³ STEL |
| Ethylene oxide | 75-21-8 | 1 ppm TWA<br>1.8 mg/m³ TWA | 1 ppm TWA<br>2 mg/m³ TWA |
| Formaldehyde | 50-00-0 | 1 ppm/1.2 mg/m³ TWA<br>2 ppm/2.5 mg/m³ STEL<br>probable carcinogen | 2 ppm Ceiling<br>3 mg/m³ Ceiling |
| Acetaldehyde | 75-07-0 | 91 mg/m³ STEL<br>50 ppm STEL<br>20 ppm TWA<br>36 mg/m³ TWA | = 25 ppm Peak<br>= 45 mg/m³ Peak |

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation. 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 Safety glasses with side-shields.

**Skin and body protection:** Chemical resistant apron
Gloves
Long sleeved clothing

**Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**
Liquid

**Appearance:**
Oily.

**Color:**
Yellow.

**Odor:**
Odorless.

**Taste**
No information available.

**Formula**
No information available

**Molecular/Formula weight (g/mole):**
No information available

**Flammability (solid, gas)**
no data available

**Flashpoint (°C/°F):**
218.3°C/424.9°F.

°C/505°F

**Flash Point Tested according to:**
Closed cup
Open cup

**Autoignition Temperature (°C/°F):**
No information available

**Lower Explosion Limit (%):**
No information available

**Upper Explosion Limit (%):**
No information available

**Melting point/range(°C/°F):**
Pour point = <-6°C/<21°F

**Decomposition temperature(°C/°F):**
No information available

**Boiling point/range(°C/°F):**
>200°C/392°F

**Bulk density:**
No information available

**Density (g/cm3):**
No information available

**Specific gravity:**
1.031

**pH**
No information available

**Vapor pressure @ 20°C (kPa):**
<0

**Evaporation rate:**
No information available

**Vapor density:**
No information available

**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:**
Slightly soluble in aliphatic hydrocarbons
Forms a dispersion in water

## 10. STABILITY AND REACTIVITY

**Reactivity**
Reactive with acids
Reactive with oxidizing agents

**Chemical stability**

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:** Acids
Oxidizing agents

**Hazardous decomposition products:** No information available.

**Other Information**
**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

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

**Acute Toxicity**

**Component Information**

| Polyethylene glycol octylphenyl ether | |
|---|---|
| CAS No | 9036-19-5 |

**LD50/oral/rat =** 1700 mg/kg Oral LD50 Rat; 4190 mg/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 LC50information =** No information available

| Polyethylene Glycol | |
|---|---|
| CAS No | 25322-68-3 |

**LD50/oral/rat =** 22 g/kg Oral LD50 Rat; 28 g/kg Oral LD50 Rat
**LD50/oral/mouse =** No information available
**LD50/dermal/rabbit =** > 20 g/kg Dermal LD50
**LD50/dermal/rat =** No information available
**LC50/inhalation/rat =** No information available
**LC50/inhalation/mouse =** No information available
**Other LD50 or LC50information =** No information available

| 1,4-Dioxane | |
|---|---|
| CAS No | 123-91-1 |

**LD50/oral/rat =** 5170 mg/kg Oral LD50 Rat; 4200 mg/kg Oral LD50 Rat
**LD50/oral/mouse =** No information available
**LD50/dermal/rabbit =** 7600 mg/kg Dermal LD50Rabbit
**LD50/dermal/rat =** No information available
**LC50/inhalation/rat =** 46 mg/l Inhalation LC50 Rat 2 h
**LC50/inhalation/mouse =** No information available
**Other LD50 or LC50information =** No information available

| Ethylene oxide | |
|---|---|
| CAS No | 75-21-8 |

**LD50/oral/rat =** 72 mg/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 =** 800 ppm Inhalation LC50 Rat 4 h
**LC50/inhalation/mouse =** No information available
**Other LD50 or LC50information =** No information available

| Formaldehyde | |
|---|---|
| CAS No | 50-00-0 |

**LD50/oral/rat =** 100 mg/kg Oral LD50 Rat
**LD50/oral/mouse =** 500 mg/kg (RTECS)
385 mg/kg (RTECS)
42 mg/kg (RTECS)
**LD50/dermal/rabbit =** 270 mg/kg Dermal LD50Rabbit
**LD50/dermal/rat =** No information available
**LC50/inhalation/rat =** 0.578 mg/L Inhalation LC50 Rat 4 h
**LC50/inhalation/mouse =** No information available
**Other LD50 or LC50information =** 260 mg/kg oral LD50 Guinea Pig

| Acetaldehyde | |
|---|---|
| CAS No | 75-07-0 |

**LD50/oral/rat =** 660 mg/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 =** 13300 ppm Inhalation LC50 Rat 4 h
**LC50/inhalation/mouse =** No information available

**Other LD50 or LC50information =** No information available

**Product Information**

**LD50/oral/rat =**
**Value - Acute Toxicity =** 3800 (RTECS); >4000 (Dow Chemical) mg/kg

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

**LD50/dermal/rabbit**
**Value - Acute Toxicity =** > 3000 (Dow Chemical) mg/kg

**LD50/dermal/rat**
**VALUE - Acute Tox =** 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:** May cause skin irritation. May cause mild to moderate skin irritation. It can be absorbed through the skin.

**Eye Contact:** Causes serious eye irritation. Moderately irritating to the eyes. May cause corneal injury that is slow to heal.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** Low hazard for usual industrial handling. Health injuries are not known or expected under normal use.

**Aspiration hazard** No information available.

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

**Chronic Toxicity** No information available.

**Sensitization:** No information available.

**Mutagenic Effects:** May affect genetic material

**Carcinogenic effects:** Not considered carcinogenic.

| Component | CAS No | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|---|---|---|---|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |
| Polyethylene Glycol | 25322-68-3 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 123-91-1 | Group 2B - Possibly Carcinogenic to Humans - Monograph 71 [1999] Supplement 7 [1987] Monograph 11 [1976] | A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans | Reasonably Anticipated To Be A Human Carcinogen | Present | Not listed | Not listed |
| Ethylene oxide | 75-21-8 | Group 1 - Carcinogenic to Humans - Monograph 100F [2012] Monograph 97 [2008] Monograph 60 [1994] overall evaluation upgraded from Group 2A to Group 1 based on mechanistic and other relevant data | A2 Suspected Human Carcinogen | Known Human Carcinogen | Present see 29 CFR 1910.1047 | Not listed | Not listed |
| Formaldehyde | 50-00-0 | Group 1 -Carcinogenic to humans - Monograph 100F [2012] Monograph 88 [2006] Monograph 62 [1995] Supplement 7 [1987] | A1 Confirmed Human Carcinogen | Known Human Carcinogen | Present see 29 CFR 1910.1048 | Not listed | Not listed |
| Acetaldehyde | 75-07-0 | Group 1 - Carcinogenic to humans - Monograph 100E [2012] associated with consumption of alcoholic beverages Monograph 71 [1999] Supplement 7 [1987] Monograph 36 [1985] | A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans | Reasonably Anticipated To Be A Human Carcinogen | Present | 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:** No information available
**Developmental Effects:** No information available
**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.

*Polyethylene Glycol - 25322-68-3*
**Fish** 5000 mg/L LC50 Carassius auratus 24 h 1
*1,4-Dioxane - 123-91-1*
**Fish** 10000 mg/L LC50 Lepomis macrochirus 96 h static 1 10000 mg/L LC50 Lepomis macrochirus 96 h semi-static 1 9850 mg/L LC50 Pimephales promelas 96 h flow-through 1 10306 - 14742 mg/L LC50 Pimephales promelas 96 h static 1 9850 mg/L LC50 Pimephales promelas 96 h 1
**Crustacea** 163 mg/L EC50 water flea 48 h
*Ethylene oxide - 75-21-8*
**Fish** 73 - 96 mg/L LC50 Pimephales promelas 96 h 1
**Crustacea** 137 - 300 mg/L LC50 Daphnia magna 48 h
*Formaldehyde - 50-00-0*
**Fish** 22.6 - 25.7 mg/L LC50 Pimephales promelas 96 h flow-through 1 1510 µg/L LC50 Lepomis macrochirus 96 h static 1 41 mg/L LC50 Brachydanio rerio 96 h static 1 0.032 - 0.226 mL/L LC50 Oncorhynchus mykiss 96 h flow-through 1 100 - 136 mg/L LC50 Oncorhynchus mykiss 96 h static 1 23.2 - 29.7 mg/L LC50 Pimephales promelas 96 h static 1
**Crustacea** 2 mg/L LC50 Daphnia magna 48 h 11.3 - 18 mg/L EC50 Daphnia magna 48 h
*Acetaldehyde - 75-07-0*
**Algae/aquatic plants** 237 - 249 mg/L EC50 Nitzschia linearis 120 h
**Fish** 1.8-2.4 mg/L LC50 Oncorhynchus mykiss 96 h static 1
28.0-34.0 mg/L LC50 Pimephales promelas 96 h flow-through 1
39.8-46.8 mg/L LC50 Pimephales promelas 96 h static 1
53 mg/L LC50 Lepomis macrochirus 96 h static 1
**Crustacea** 3.64 - 6.15 mg/L EC50 Daphnia magna 48 h
48.3 mg/L EC50 Daphnia magna 48 h

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility in soil** No information available
**Other adverse effects** 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

| Component | CAS No | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|---|---|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | None | None | None | None |
| Polyethylene Glycol | 25322-68-3 | None | None | None | None |

| | | | | | |
|---|---|---|---|---|---|
| 1,4-Dioxane | 123-91-1 | None | None | None | U108 |
| Ethylene oxide | 75-21-8 | None | None | None | U115 ignitable waste, toxic waste |
| Formaldehyde | 50-00-0 | None | None | None | U122 |
| Acetaldehyde | 75-07-0 | None | None | None | U001 Ignitable waste |

## 14. TRANSPORT INFORMATION

**DOT**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class** | No information available |
| **Subsidiary Class** | No information available |
| **Packing group:** | No information available |
| **Emergency Response Guide Number** | No information available |
| **Marine Pollutant** | No data available |
| **DOT RQ (lbs):** | No information available |
| **Special Provisions** | No Information available |
| **Symbol(s):** | No information available |
| **Description:** | No information available |

**TDG (Canada)**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |
| **Marine Pollutant** | No Information available |
| **Description:** | No information available |

**ADR**

| | |
|---|---|
| **UN Number** | Not regulated |
| **Proper Shipping Name:** | No information available |
| **Transport hazard class(es)** | No information available |
| **Packing group** | No information available |
| **Subsidiary Risk:** | No information available |

**IMDG**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class:** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |
| **Marine Pollutant** | No information available |

**RID**

| | |
|---|---|
| **UN Number** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Transport hazard class(es)** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing group** | No information available |

**ICAO (air)**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |

**IATA**

| | |
|---|---|
| **UN Number** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Transport hazard class(es)** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing group** | No information available |
| **Precautionary Statements - Response** | No information available |
| **Special Provisions** | No information available |

## 15. REGULATORY INFORMATION

### International Inventories

| Component | CAS No | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | China IECSC | Australia (AICS) | EINECS-No. |
|---|---|---|---|---|---|---|---|---|
| *Polyethylene glycol octylphenyl ether* | 9036-19-5 | PresentACTIVE | Present KE-33567 | Present | Not present | Present | Present | Not present |
| *Polyethylene Glycol* | 25322-68-3 | PresentACTIVE | Present KE-20228 | Present | Present (7)-129 | Present | Present | Not present |
| *1,4-Dioxane* | 123-91-1 | PresentACTIVE | Present KE-10463 | Present | Present (5)-839 | Present | Present | Present 204-661-8 |
| *Ethylene oxide* | 75-21-8 | PresentACTIVE | Present KE-27537 | Present | Present (2)-218 | Present | Present | Present 200-849-9 |
| *Formaldehyde* | 50-00-0 | Present(ACTIVE) | Present KE-17074 | Present | Present (2)-482 | Present | Present | Present 200-001-8 |
| *Acetaldehyde* | 75-07-0 | Present T | Present KE-00003 | Present | Present (2)-485 | Present | Present | Present 200-836-8 |

### U.S. Regulations

*Polyethylene Glycol*

**Minnesota - Hazardous Substance List:** Present

**FDA - Direct Food Additives** 21 CFR 172.210, 21 CFR 172.820, 21 CFR 173.310, 21 CFR 173.340 (molecular weight 200-9500)

**FDA - 21 CFR - Total Food Additives - List Sourced from EAFUS** 172.210, 172.820, 173.310, 173.340, 175.105, 175.300, 176.180, 178.3750, 73.1 (molecular weight 200-9500)

*1,4-Dioxane*

**Massachusetts RTK:** Present
**Massachusetts EHS:** carcinogen; extraordinarily hazardous
**New Jersey RTK Hazardous Substance List:** 0789
**New Jersey (EHS) List:** 0789 500 lb TPQ
**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present
**Pennsylvania RTK:** Environmental hazard
Special hazardous substance
**Pennsylvania RTK - Environmental Hazard List** Present
**Pennsylvania RTK - Special Hazardous Substances** Present
**Minnesota - Hazardous Substance List:** Present
**New York Release Reporting - List of Hazardous Substances:**
100 lb RQ
1 lb RQ
**Louisana Reportable Quantity List for Pollutants:** 100lbfinal RQ
45.4kgfinal RQ
**California Directors List of Hazardous Substances:** Present

*Ethylene oxide*

**Massachusetts RTK:** Present
**Massachusetts EHS:** carcinogen; extraordinarily hazardous
**New Jersey RTK Hazardous Substance List:** 0882
**New Jersey (EHS) List:** 0882 500 lb TPQ
**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present
**New Jersey TCPA - EHS:** 2700lbTQ
**Pennsylvania RTK:** Environmental hazard
Special hazardous substance

**Pennsylvania RTK - Environmental Hazard List** Present
**Pennsylvania RTK - Special Hazardous Substances** Present
**Michigan PSM HHC:** = 5000 lb TQ
**Minnesota - Hazardous Substance List:** Present
**New York Release Reporting - List of Hazardous Substances:**
10 lb RQ
**Louisana Reportable Quantity List for Pollutants:** Listed
**California Directors List of Hazardous Substances:** Present

**FDA - 21 CFR - Total Food Additives** 172.710, 172.808, 175.105, 176.180, 176.210, 177.2470, 178.3520
**- List Sourced from EAFUS**

*Formaldehyde*

**Massachusetts RTK:** Present
**Massachusetts EHS:** carcinogen; extraordinarily hazardous
**New Jersey RTK Hazardous Substance List:** 0946
**New Jersey (EHS) List:** 0946 500 lb TPQ
**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present
**New Jersey TCPA - EHS:** 175lbTQ
15000lbTQ
**Pennsylvania RTK:** Environmental hazard
Special hazardous substance
**Pennsylvania RTK - Environmental Hazard List** Present
**Pennsylvania RTK - Special Hazardous Substances** Present
**Michigan PSM HHC:** = 1000 lb TQ
**Minnesota - Hazardous Substance List:** Present
**New York Release Reporting - List of Hazardous Substances:**
100 lb RQ
1 lb RQ
**Louisana Reportable Quantity List for Pollutants:** 100lbfinal RQ
45.4kgfinal RQ
**California Directors List of Hazardous Substances:** Present

**FDA - Direct Food Additives** 21 CFR 173.340
**FDA - 21 CFR - Total Food Additives** 173.340, 175.105, 175.210, 175.300, 176.170, 176.180, 176.200, 177.1200, 177.2410,
**- List Sourced from EAFUS** 178.3120, 573.460

*Acetaldehyde*

**Massachusetts RTK:** Present
**Massachusetts EHS:** carcinogen; extraordinarily hazardous
**New Jersey RTK Hazardous Substance List:** 0001
**New Jersey (EHS) List:** 0001 500 lb TPQ
**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present
**New Jersey TCPA - EHS:** =4900lbTQ
**Pennsylvania RTK:** Environmental hazard
**Pennsylvania RTK - Environmental Hazard List** Present
**Pennsylvania RTK - Special Hazardous Substances** Present
**Michigan PSM HHC:** = 2500 lb TQ
**Minnesota - Hazardous Substance List:** Present
**New York Release Reporting - List of Hazardous Substances:**
= 1 lb RQ
**Louisana Reportable Quantity List for Pollutants:** Listed
**California Directors List of Hazardous Substances:** Present
**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 182.60

**FDA - 21 CFR - Total Food Additives** 177.2410 182.60
**- List Sourced from EAFUS**

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

**Chemicals Known to the State of California to Cause Cancer:**
WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**
⚠WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.

| Component | CAS No | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|---|---|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | Not Listed | Not Listed | Not Listed | Not Listed |
| Polyethylene Glycol | 25322-68-3 | Not Listed | Not Listed | Not Listed | Not Listed |
| 1,4-Dioxane | 123-91-1 | carcinogen | Not Listed | Not Listed | Not Listed |

| | | | | | |
|---|---|---|---|---|---|
| Ethylene oxide | 75-21-8 | carcinogen | Developmental toxicity | Male reproductive toxicity | female reproductive toxicity |
| Formaldehyde | 50-00-0 | carcinogen | Not Listed | Not Listed | Not Listed |
| Acetaldehyde | 75-07-0 | Listed | Not Listed | Not Listed | Not Listed |

**CERCLA/SARA**

| Component | 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 |
|---|---|---|---|---|---|---|
| *Polyethylene glycol octylphenyl ether* | 9036-19-5 | None | None | None | None | None |
| *Polyethylene Glycol* | 25322-68-3 | None | None | None | None | None |
| *1,4-Dioxane* | 123-91-1 | 100 lb final RQ<br>45.4 kg final RQ | None | None | None | 0.1 % de minimis concentration |
| *Ethylene oxide* | 75-21-8 | 10 lb final RQ<br>4.54 kg final RQ | 1000 lb TPQ<br>10 lb EPCRA RQ | None | None | 0.1 % de minimis concentration |
| *Formaldehyde* | 50-00-0 | 100 lb final RQ<br>45.4 kg final RQ | 100 lb EPCRA RQ | None | None | 0.1 % de minimis concentration |
| *Acetaldehyde* | 75-07-0 | = 1000 lb final RQ<br>= 454 kg final RQ | None | None | None | 0.1 % de minimis concentration |

**U.S. TSCA**

| Component | CAS No | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | Not Applicable | 03/29/199606/30/1998 |
| Polyethylene Glycol | 25322-68-3 | Not Applicable | Not Applicable |
| 1,4-Dioxane | 123-91-1 | Not Applicable | Not Applicable |
| Ethylene oxide | 75-21-8 | Not Applicable | 10/04/1982 10/04/1992 |
| Formaldehyde | 50-00-0 | Not Applicable | Not Applicable |
| Acetaldehyde | 75-07-0 | Not Applicable | 09/30/199106/30/1998 |

## Canada

**WHIMIS 2015 - GHS Classifications**

WHMIS 2015 Hazard Classification Information: The WHMIS 2015 classification of this product has not been validated or reviewed yet.

| Component | WHMIS 2015 Hazard Classification |
|---|---|
| Polyethylene glycol octylphenyl ether<br>9036-19-5 ( >=97.0 )<br>1,4-Dioxane<br>123-91-1 ( <0.002 ) | Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.<br>Flammable liquids - Category 2: H225 Highly flammable liquid and vapour.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Carcinogenicity - Category 2: H351 Suspected of causing cancer. |
| Ethylene oxide<br>75-21-8 ( <0.001 ) | Flammable gases - Category 1: H220 Extremely flammable gas.; Gases under pressure - Liquefied gas: H280 Contains gas under pressure, may explode when heated.; Acute toxicity - Inhalation - Category 3: H331 Toxic if inhaled.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Respiratory sensitizers - Category 1B: H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.; Skin sensitizers - Category 1B: H317 May cause allergic skin reaction.; Germ cell mutagenicity - Category 1B: H340 May cause genetic defects.; Carcinogenicity - Category 1B: H350 May cause cancer.; Reproductive Toxicity - Category 1: H360 May damage fertility or the unborn child.; Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation.; |

| | |
|---|---|
| | Specific target organ toxicity - Repeated exposure - Category 1: H372 Causes damage to organs through prolonged or repeated exposure. |
| Formaldehyde<br>50-00-0 ( <0.0005 ) | Flammable gases - Category 1: H220 Extremely flammable gas.; Flammable liquids - Category 3: H226 Flammable liquid and vapour. (solution, 37%); Corrosive to Metals - Category 1: H290 May be corrosive to metals. (solution, 37%); Acute toxicity - Oral - Category 4: H302 Harmful if swallowed. (solution, 37%); Acute toxicity - Dermal - Category 3: H311 Toxic in contact with skin. (solution, 37%); Acute toxicity - Inhalation - Category 2: H330 Fatal if inhaled.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation. (solution, 37%); Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage. (solution, 37%); Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Skin sensitizers - Category 1A: H317 May cause allergic skin reaction. (solution, 37%); Germ cell mutagenicity - Category 2: H341 Suspected of causing genetic defects.; Carcinogenicity - Category 1A: H350 May cause cancer.; Reproductive Toxicity - Category 1: H360 May damage fertility or the unborn child. (solution, 37%; contains 16% of a substance that is toxic to reproduction (Methyl alcohol)); Specific target organ toxicity - Single exposure - Category 2: H371 May cause damage to organs. (solution, 37%); Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation.; Specific target organ toxicity - Single exposure - Category 3: H336 May cause drowsiness or dizziness. (solution, 37%) |
| Acetaldehyde<br>75-07-0 ( <0.0005 ) | Flammable liquids - Category 1: H224 Extremely flammable liquid and vapour.; Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Skin sensitizers - Category 1B: H317 May cause allergic skin reaction.; Carcinogenicity - Category 2: H351 Suspected of causing cancer.; Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation. |

**Canada Hazardous Products Regulation** This product has not 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

**DSL/NDSL**

| Component | CAS No | Canada (DSL) | Canada (NDSL) |
|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | Present | Not Listed |
| Polyethylene Glycol | 25322-68-3 | Present | Not Listed |
| 1,4-Dioxane | 123-91-1 | Present | Not Listed |
| Ethylene oxide | 75-21-8 | Present | Not Listed |
| Formaldehyde | 50-00-0 | Present | Not Listed |
| Acetaldehyde | 75-07-0 | Present | Not Listed |

| **Component** | CAS No | CEPA Schedule I - Toxic Substances |
|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | Not listed |
| Polyethylene Glycol | 25322-68-3 | Not listed |
| 1,4-Dioxane | 123-91-1 | Not listed |
| Ethylene oxide | 75-21-8 | Present |
| Formaldehyde | 50-00-0 | Present |
| Acetaldehyde | 75-07-0 | Present |
| Component | CAS No | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
| Polyethylene glycol octylphenyl ether | 9036-19-5 | Not listed |
| Polyethylene Glycol | 25322-68-3 | Not listed |
| 1,4-Dioxane | 123-91-1 | Not listed |
| Ethylene oxide | 75-21-8 | Not listed |
| Formaldehyde | 50-00-0 | Not listed |
| Acetaldehyde | 75-07-0 | Not listed |

**EU Classification**

**EU GHS - SV - CLP 1272/2008**

| Component | CAS No | EU GHS - SV - CLP (1272/2008) |
|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | |
| Polyethylene Glycol | 25322-68-3 | |
| 1,4-Dioxane | 123-91-1 | Flammable liquids - Flam. Liq. 2: H225 Highly flammable liquid and vapour.; Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation.; Carcinogenicity - Carc. 2: H351 Suspected of causing cancer.; Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation.; Supplemental Hazards: EUH019 May form explosive peroxides.; Supplemental Hazards: EUH066 Repeated exposure may cause skin dryness or cracking.603-024-00-5 |
| Ethylene oxide | 75-21-8 | Flammable gases - Flam. Gas 1: H220 Extremely flammable gas.; Gases under pressure: H280 Contains gas under pressure, may explode when heated.; Acute toxicity - Inhalation - Acute Tox. 3: H331 Toxic if inhaled. (Minimum classification); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation.; Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation.; Germ cell mutagenicity - Muta. 1B: H340 May cause genetic defects.; Carcinogenicity - Carc. 1B: H350 May cause cancer.; Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation.603-023-00-X |
| Formaldehyde | 50-00-0 | Acute toxicity - Oral - Acute Tox. 3: H301 Toxic if swallowed. (Minimum classification); Acute toxicity - Dermal - Acute Tox. 3: H311 Toxic in contact with skin. (Minimum classification); Acute toxicity - Inhalation - Acute Tox. 3: H331 Toxic if inhaled. (Minimum classification); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (C >= 25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Skin sensitizers - Skin Sens. 1: H317 May cause allergic skin reaction. (C >= 0.2 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Germ cell mutagenicity - Muta. 2: H341 Suspected of causing genetic defects.; Carcinogenicity - Carc. 1B: H350 May cause cancer.605-001-00-5 Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns |

| | | |
|---|---|---|
| | | and eye damage. (C >= 25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation. (5 % <= C <25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation. (5 % <= C <25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Skin sensitizers - Skin Sens. 1: H317 May cause allergic skin reaction. (C >= 0.2 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation. (C >= 5 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)605-001-00-5 |
| Acetaldehyde | 75-07-0 | |

**EU - CLP (1272/2008)**

**R-phrase(s)**
R22 - Harmful if swallowed
R36 - Irritating to eyes

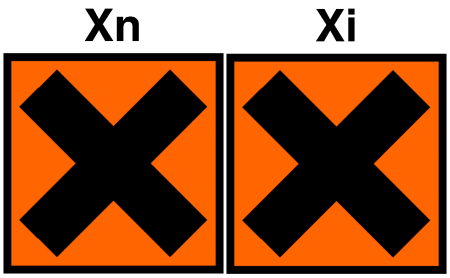
**S -phrase(s)**
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S46 - If swallowed, seek medical advice immediately and show this container or label

| Component | CAS No | **Classification** | **Concentration Limits:** | **Safety Phrases** |
|---|---|---|---|---|
| Polyethylene glycol octylphenyl ether | 9036-19-5 | | No information | |
| Polyethylene Glycol | 25322-68-3 | | No information | |
| 1,4-Dioxane | 123-91-1 | F; R11-19<br>Xi; R36/37<br>Carc.Cat.3; R40<br>R66 | No information | S: (2)-9-16-36/37-46 |
| Ethylene oxide | 75-21-8 | F+; R12<br>T; R23<br>Xi; R36/37/38<br>Carc.Cat.2; R45<br>Muta.Cat.2; R46<br>R6 | No information | S: 53-45 |
| Formaldehyde | 50-00-0 | T; R23/24/25 | 0.2%<=C<1% Xi;R43 | S(1/2)-S26-S36/37/39- |

| | | | | |
|---|---|---|---|---|
| | | C; R34<br>Carc.Cat.2; R45<br>R43<br>Muta.Cat.3; R68 | 1%<=C<5%<br>Xn;R40-43<br>25%<=C<br>T;R23/24/25-34-40-43<br>5%<=C<25%<br>Xn;R20/21/22-36/37/38-40-43 | S45-<br>S51 |
| Acetaldehyde | 75-07-0 | Carc. Cat.3;R40<br>F+;R12<br>Xi;R36/37 | No information | S(2)-S16-S33-S36/37 |

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

**Indication of danger:**
Xn - Harmful
Xi - Irritant




## 16. OTHER INFORMATION

**Preparation Date:** 11/08/2019
**Revision date** 11/08/2019
**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 pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**