

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

CAS Number: 25322-68-3 (PEG 1450)
Product Name: PEG 1450
Revision Date: Aug 01, 2018 **Date Printed:** Jun 24, 2021
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Thames River Chemical Corp.
Address: 5230 Harvester Road Burlington, ON, CA, L7L 4X4
Emergency Phone: CHEMTREC (800) 424-9300
Information Phone Number: 905-681-5353
Fax: 905-681-5377
Product/Recommended Uses: For laboratory or industrial use only.

SECTION 2) HAZARDS IDENTIFICATION**Classification**

Not a hazardous substance or mixture according to United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

Pictograms

None

Signal Word

No signal word available.

Precautionary Statements - General

No precautionary statement available.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

| CAS | Chemical Name | % By Weight |
|--------------|---------------------|-------------|
| 0025322-68-3 | POLYETHYLENE GYLCOL | 100% |

SECTION 4) FIRST-AID MEASURES**Inhalation**

Seek prompt medical attention. Remove victim to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

Skin Contact

Remove contaminated clothing and shoes. Wash affected areas with plenty of running water, preferably under a shower. Seek prompt medical attention.

Ingestion

Seek prompt medical attention. Do not induce vomiting. Vomiting should only be induced by medical personnel. If vomiting occurs, keep the head lower than chest to avoid aspiration into the lungs. Never give anything by mouth to an unconscious or convulsing person.

Most Important Symptoms and Effects, Both Acute and Delayed

Ingestion - Low toxicity. In large amounts may cause nausea, vomiting and diarrhea. Inhalation - Due to your low vapor pressure, is unlikely to cause inhalation problems at room temperature. Vapors from the liquid at high temperatures or mist of the product, in high concentrations, may cause irritation of the respiratory system. Skin - It is unlikely that exposure to small amounts for short periods, may have any irritant or toxic effect. It can be absorbed through the skin and cause mild irritation. Eyes - May cause mild irritation.

Indication of Any Immediate Medical Attention and Special Treatment Needed

There is not known any specific antidote. Direct the treatment in accordance with the symptoms and clinical conditions of the patient.

SECTION 5) FIRE-FIGHTING MEASURES**5.2 Specific Hazards in Case of Fire**

Product is not flammable. Dust can become combustible at high concentrations. In case of combustion it may generate carbon monoxide, besides CO₂.

5.1 Extinguishing media

In case of fire, use: Alcohol resistant foam. Water spray. Carbon dioxide (CO₂). Dry chemical powder.

5.3 Advice for firefighters

Water jets should not be used directly on igniting products because it may disperse the material and intensify the fire. Self-contained breathing apparatus and protective clothing are required. Cool the intact fire-exposed containers with water spray and remove them.

SECTION 6) ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Isolate and signalize area. Keep heat and/or ignition sources away. Use personal protection equipment as indicated in Section 8, in order to avoid contact with spilled product.

6.2 Environmental Precautions

Prevent product from entering into soil and waterways. Notify the competent authorities if the product has run into drainage systems or watercourse or has contaminated the ground or vegetation.

6.3 Methods and Materials for Containment and Cleaning up

Stop if possible. Contain and dike spilled product with earth or sand. Eliminate ignition or heat sources. Transfer to proper container. Collect remnants with an appropriate absorbent material. Wash the contaminated surface with water, which should be collected for disposal.

SECTION 7) HANDLING AND STORAGE**General**

Packaging Material
Recommended: Stainless steel. Polypropylene. Unsuitable: Copper. These metals alloys.

7.1 Precautions for safe handling

Use in a well-ventilated area. Avoid inhalation and contact with eyes, skin or clothing through proper protection. If occurs accidental contact, exposed area should be washed immediately. Emergency eyewashes and showers shall be located in accessible locations. Wash hands and face thoroughly after handling. Wash contaminated clothing before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Store in a covered and well-ventilated area, away from sunlight and sources of heat or open flames. Ensure that the storage location has adequate moisture, pressure and temperature. Keep containers tightly closed when not in use. This product is hygroscopic. Tanks should be kept in dry inert gas atmosphere.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear safety glasses with side shields

Skin Protection

Skin Protection PVC apron. It is recommended to adopt safety boots/shoes.
Hand Protection Gloves made of: Rubber. PVC (Polyvinyl chloride).

Respiratory Protection

In case of emergency or contact with high concentrations of the product, wear an air supplied mask or self contained breathing apparatus. It is recommended to wear a face mask with mechanical filter in case of exposure to the particulate material.

Appropriate Engineering Controls

In closed environments, this product should be handled keeping proper exhaust (general diluter or local exhaust).

| Chemical Name | CANsmg | CANsppm | CANtmg | CANtppm | OSHA STEL (mg/m3) | OSHA STEL (ppm) | OSHA TWA (mg/m3) | OSHA TWA (ppm) |
|------------------------|--------|---------|--------|---------|-------------------|-----------------|------------------|----------------|
| No applicable chemical | - | - | - | - | - | - | - | - |

| Chemical Name | OSHA Carcinogen | OSHA Tables (Z1, Z2, Z3) | OSHA Skin designation | ACGIH STEL (mg/m3) | ACGIH STEL (ppm) | ACGIH TWA (mg/m3) | ACGIH TWA (ppm) | ACGIH TLV Basis |
|------------------------|-----------------|--------------------------|-----------------------|--------------------|------------------|-------------------|-----------------|-----------------|
| No applicable chemical | - | - | - | - | - | - | - | - |

| Chemical Name | ACGIH Carcinogen | ACGIH Notations |
|------------------------|------------------|-----------------|
| No applicable chemical | - | - |

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

| | |
|-----------------------|---------------------------|
| Density | 1,210.00 kg/l |
| Specific Gravity | No data available |
| Appearance | Solid, White, Hygroscopic |
| Odor Description | Odourless |
| Odor Threshold | N/A |
| pH | 5.0 - 7.0(5%sol., 25°C) |
| Melting Point | 33 °C |
| Low Boiling Point | No Data Available |
| High Boiling Point | N/A |
| Flash Point | > 250 °C (482 °F). °C |
| Vapor Pressure | Not available |
| Vapor Density | No Data Available |
| Evaporation Rate | No Data Available |
| Upper Explosion Level | No Data Available |
| Lower Explosion Level | No Data Available |

| | |
|-----------------------|-----------------------------------|
| Water Solubility | Partially soluble in water@ 20 °C |
| Coefficient Water/Oil | Log Kow: -2.30 |
| Viscosity | 25.0 - 32.0 cSt (210 °F) |

SECTION 10) STABILITY AND REACTIVITY**Reactivity**

No hazardous reactivity is expected.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Stability

Stable under normal storage and handling conditions.

Conditions to Avoid

Avoid high temperatures and contact with sources of ignition. Avoid exposing product to air.

Incompatible Materials

Strong oxidizing agents. Acids. Combustible materials.

Hazardous Decomposition Products

Upon combustion CO and CO₂ are formed.

SECTION 11) TOXICOLOGICAL INFORMATION**Acute Toxicity**

Skin LD₅₀: > 15000 mg/kg Rat
Dermal LD₅₀ > 20000 mg/kg

Conclusion:

Low acute toxicity by the oral route
Low acute toxicity by the dermal route
No acute hazard by the inhalation route

Aspiration Hazard

Not expected to be an aspiration hazard.

Carcinogenicity

No tumorigenic effect was produced in mice after intravaginal contact for 1 year. TDLo: 416 mg/kg.

Germ Cell Mutagenicity

Negative.50 pph, hamster; 25 mmol/L, 3h, hamster (+S9); 3 mmol/L - 7 mmol/L, 16h, hamster; 100 g/L, other microorganisms.

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

Reproductive Toxicity

No effect was produced in pregnant rabbits (6 - 18 days) after ingestion. TDLo: 130 mg/kg.

Respiratory/Skin Sensitization

No data available.

Serious Eye Damage/Irritation

Mild irritation (500 mg/24h, rabbit).

Skin Corrosion/Irritation

Mild irritation (500 mg/24h, rabbit).

Specific Target Organ Toxicity - Repeated Exposure

Toxicological reports have suggested an acceptable daily intake of PEG for human estimated up to 10 mg/kg or 0.7 g/70-kg human/day. For low molecular weight PEGs, this acceptable dose could, in theory, give rise to a systemic (absorbed) dose of approximately 400 mg/day.

Specific Target Organ Toxicity - Single Exposure

No data available.

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Fish -LC50, 24h, Carassius auratus: > 5000 mg/L. LC50, 96h, Carassius auratus: > 20000 mg/L. LC50, 96h, Lepomis macrochirus: 1700 mg/L.

Mobility in Soil

Log Koc: -1.53. It is expected to have high mobility in soil.

Bioaccumulative Potential

Log Kow: -2.30. It is not expected to bioaccumulate in the environment.

Persistence and Degradability

56.2% by BOD MITI test. Not readily biodegradable.

Other Adverse Effects

Water hazard class 1: Slightly hazardous to water.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Product: The preferred options for disposal include reuse, recycling, co-processing, finding a use for a by-product, incineration or other thermal destruction process at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. Perform co-processing, incineration or other thermal destruction process at facilities capable of minimizing or reducing air pollution emissions. The disposal must comply with federal, state, and local laws and regulations in accordance with the environmental agencies.

Product Remains: Same method as indicated for product.

Packaging: Do not cut or pierce the packaging, nor do hot work near them. Do not remove labels until the product has been fully removed and the packaging cleaned. The preferred options for disposal include reuse, recycling or reclamation at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. The disposal must comply with local legislation and in accordance with standards from local environmental agencies.

SECTION 14) TRANSPORT INFORMATION

| | Transport Canada Information | U.S. DOT Information |
|---------------------------|------------------------------|----------------------|
| UN number: | Not Regulated | Not Regulated |
| Proper shipping name: | N/A | N/A |
| Hazard class: | Not Applicable | Not Applicable |
| Packaging group: | Not Applicable | Not Applicable |
| Hazardous substance (RQ): | | No Data Available |

| | | |
|---|-------------------|-------------------|
| Marine Pollutant: | No Data Available | No Data Available |
| Note / Special Provision: | No Data Available | No Data Available |
| Toxic-Inhalation Hazard: | | No Data Available |
| Transport in bulk (according to Annex II of MARPOL 73/78): | No Data Available | |

SECTION 15) REGULATORY INFORMATION

| CAS | Chemical Name | % By Weight | Regulation List |
|--------------|---------------------|-------------|--|
| 0025322-68-3 | POLYETHYLENE GLYCOL | 100% | DSL,TSCA,EU_EC_Inventory - European_EC_Inventory |

SECTION 16) OTHER INFORMATION

Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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