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Material Safety Data Sheet

Triethylene Glycol Dimethacrylate

Section 1: Chemical Product and Company Identification

Product Name: Triethylene Glycol Dimethacrylate

Catalog Codes: SLT1876

CAS#: 109-16-0

RTECS: OZ4100000

TSCA: TSCA 8(b) inventory: Triethylene Glycol Dimethacrylate

CI#: Not available.

Synonym: 2-Propenoic acid 2-methyl-, 1,2-ethanediylbis (oxy-2,1ethanediyl) ester; Tedma

Chemical Name: Methacrylic acid, diester triethylene glycol

Chemical Formula: C₁₄H₂₂O₆

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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Triethylene Glycol Dimethacrylate	109-16-0	100

Toxicological Data on Ingredients:

Triethylene Glycol Dimethacrylate: ORAL (LD50): Acute: 10837 mg/kg [Rat]. 10750 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

Slightly hazardous in case of skin contact (irritant, sensitizer, permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

Slightly hazardous in case of skin contact (sensitizer). CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.
TERATOGENIC EFFECTS: Not available.DEVELOPMENTAL TOXICITY: Not available.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of heat.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:

Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents, alkalis.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 8°C (46.4°F). Refrigerate.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Safety glasses. Lab coat.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Not available.

Taste: Not available.

Molecular Weight: 286.33 g/mole

Color: Clear Colorless to light yellow.

pH (1% soln/water): Not applicable.

Boiling Point: 155°C (311°F) @ 0.13 kPa

Melting Point: Not available.

Critical Temperature: Not available.

Specific Gravity: 1.072 @ 25 deg. C (Water = 1)

Vapor Pressure: Not available.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in oil; $\log(\text{oil/water}) = 1.9$

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether, acetone. Solubility in acetone: >10% Solubility in ethanol: >10% Solubility in ether: >10% Solubility in petroleum ether: >10%

Solubility: Partially soluble in diethyl ether, acetone. Very slightly soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability:

Excess heat, incompatible materials. May polymerize under high temperature or in contact with strong oxidants and free radical generators.

Incompatibility with various substances: Reactive with oxidizing agents, reducing agents, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity:

Avoid high temperatures, localized heat sources, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing. Incompatible with strong oxidizers, bases, strong reducers, inert gases, oxygen scavengers, materials generating free radicals.

Special Remarks on Corrosivity: Not available.

Polymerization:

Will not occur under normal conditions of use and storage. However, it may polymerize under high temperature or in contact with strong oxidants and free radical generators.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 10750 mg/kg [Mouse].

Chronic Effects on Humans: MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, sensitizer, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause mild to moderate skin irritation. It may be absorbed by the skin. It is expected to be a slight absorption hazard. It may cause sensitization, an allergic skin reaction. Eyes: May cause mild to moderate eye irritation. Symptoms may include tearing, blinking, and redness. Inhalation: No significant signs or symptoms indicative of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this material. However, aerosols, or vapors which may be generated at elevated processing temperatures may cause respiratory tract irritation. Symptoms of irritation may include coughing, mucous production and shortness of breath. Ingestion: May cause nausea. May affect behavior/central nervous system (somnolence), respiration. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause sensitization, an allergic reaction. Ingestion: Prolonged or repeated ingestion may affect the blood (pigmented or nucleated red blood cells).

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal :

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Triethylene Glycol Dimethacrylate

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not available.

DSCL (EEC): R43- May cause sensitization by skin contact. S24/25- Avoid contact with skin and eyes.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

<p>Personal Protection: a</p> <p>National Fire Protection Association (U.S.A.):</p> <p>Health: 1</p> <p>Flammability: 1</p> <p>Reactivity: 0</p> <p>Specific hazard:</p> <p>Protective Equipment: Not applicable. Lab coat. Not applicable. Safety glasses.</p>
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Section 16: Other Information
<p>References: Not available.</p> <p>Other Special Considerations: Not available.</p> <p>Created: 10/10/2005 12:08 AM</p> <p>Last Updated: 05/21/2016 12:00 PM</p>

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