

MATERIAL SAFETY DATA SHEET TRIETHYLENE GLYCOL MSDS

1: Chemical Product and Company Identification

Product Name: Triethylene glycol
Catalogue Codes: SLT2644
CAS#: 112-27-6
RTECS: YE4550000
TSCA: TSCA 8(b) inventory: Triethylene glycol
CI#: Not available.
Synonym: 2,2'-[1,2-Ethanediy]bis(oxy)] bioethanol
Chemical Formula: C₆H₁₄O₄

2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Triethylene glycol	112-27-6	100

Toxicological Data on Ingredients: Triethylene glycol: ORAL (LD50): Acute: 17000 mg/kg [Rat].

3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of eye contact (irritant), of ingestion. Slightly hazardous in case of inhalation.
Inflammation of the eye
is characterized by redness, watering, and itching.

Potential Chronic Health Effects:

Very hazardous in case of eye contact (irritant). Slightly hazardous in case of inhalation.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to kidneys, the nervous system.

Repeated or prolonged exposure to the substance can
produce target organs damage.

4: First Aid Measures

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact: No known effect on skin contact, rinse with water for a few minutes.

Serious Skin Contact: Not available.

Inhalation: Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

Serious Inhalation: Not available.

Ingestion: Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

5: Fire and Explosion Data

Flammability of the Product:	May be combustible at high temperature.
Auto-Ignition Temperature:	371°C (699.8°F)
Flash Points:	CLOSED CUP: 177°C (350.6°F). OPEN CUP:
165.5°C (329.9°F).	
Flammable Limits:	LOWER: 0.9% UPPER: 9.2%
Products of Combustion:	These products are carbon oxides (CO, CO ₂).
Fire Hazards in Presence of Various Substances:	Not available.
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.

6: Accidental Release Measures

Small Spill:

Dilute with water and mop up or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

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.

7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/
Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

8: Exposure Controls/Personal Protection

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

Personal Protection: Splash goggles. 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.

9: Physical and Chemical Properties

Physical state and appearance:	Liquid. (Hygroscopic liquid.)
odour:	Not available.

Taste:	Not available.
Molecular Weight:	150.18 g/mole
Colour: Colourless.	
pH (1% soln/water):	Not available.
Boiling Point:	285°C (545°F)
Melting Point:	-5°C (23°F)
Critical Temperature:	Not available.
Specific Gravity:	1.1274 (Water = 1)
Vapor Pressure:	Not available.
Vapor Density:	5.17 (Air = 1)
Volatility:	Not available.
odour Threshold:	Not available.
Water/Oil Dist. Coeff.:	Not available.
Iconicity (in Water):	Not available.
Dispersion Properties:	See solubility in water.
Solubility:	Easily soluble in cold water.

10: Stability and Reactivity Data

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Not available.
Incompatibility with various substances:	Not available.
Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	Not available.
Special Remarks on Corrosivity:	Not available.
Polymerization:	No.

11: Toxicological Information

Routes of Entry: Eye contact. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 17000 mg/kg [Rat].

Chronic Effects on Humans: The substance is toxic to kidneys, the nervous system.

Other Toxic Effects on Humans:

Very hazardous in case of ingestion. Slightly hazardous in case of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

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 products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

13: Disposal Considerations

Waste Disposal:

14: Transport Information

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

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

15: Other Regulatory Information

Protective Equipment:

Not applicable. Lab coat. Not applicable. Splash goggles.

16: Other Information

References: Not available.

Other Special Considerations: Not available.

EXCLUSION OF LIABILITY

All information and instructions provided in this Material Safety Data Sheet in respect of the substance is given solely in terms of the provisions of the Occupational Health and Safety Act No 85 of 1993

and Regulations ("the Act"), is based on scientific and technical knowledge as at the date indicated on this MS Material Safety Data Sheet and is presented in good faith to be correct.

The information and instructions provided in this MSDS apply only to the substance in its present form and not to any formulation or mix, in which event it is the sole responsibility of the user of the substance as formulated and/or mixed to investigate and establish any danger which may arise out of its use, wherever such user may be situated.

It is the sole responsibility of the person in receipt of this Material Safety Data Sheet wherever such recipient may be situated, to ensure that the information provided is communicated to and understood by any person who may come in contact with the substance in any place and in any manner whatsoever. If such recipient produces formulations or mixes using the substance, then it is such recipient's sole responsibility to comply with the provisions of the Act in respect of the provision of the necessary Material Safety Data Sheet, or to comply with any other applicable legislation.