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## Material Safety Data Sheet

### Triethylene Glycol MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Triethylene glycol

**Catalog Codes:** SLT2644

**CAS#:** 112-27-6

**RTECS:** YE4550000

**TSCA:** TSCA 8(b) inventory: Triethylene glycol

**CI#:** Not available.

**Synonym:** TEG

**Chemical Formula:** C<sub>6</sub>H<sub>14</sub>O<sub>4</sub>

**Contact Information for Emergency:** (0086) 551 65418678

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#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	%By Weight
Triethylene Glycol	112-27-6	100

### Section 3: Hazards Identification

#### Summary of emergency

clear, viscous liquid colorless odorless After inhalation: fresh air. In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. After eye contact: rinse out with plenty of water., Remove contact lenses. After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell. Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire. Exothermic reaction with: Bases, Strong acids, hydrogen peroxide, Oxidizing agents, Oxygen Violent reactions possible with: Isocyanates, permanganates, Peroxides, halogen oxides, persulfates

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

#### Physical and chemical hazards

Referring to current information, no physical or chemical hazard.

#### Health hazards

Referring to current information, no health hazard.

#### Environmental hazards

Referring to current information, no environmental hazard.

Other hazards - none

### Section 4: First Aid Measures

Inhalation:	Remove to fresh air. Not expected to require first aid measures.
Ingestion:	If large amounts were swallowed, give water to drink and get medical advice.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops.
Eye Contact:	If splash occurs, immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Call a

physician.

### Section 5: Fire and Explosion Data

Fire: Flash point:	177°C (351°F) Closed Cup
Autoignition temperature:	371°C (700°F)
Flammable limits in air % by volume:	LFL: 0.9; UFL:9.2
Explosion:	Slight fire hazard when exposed to heat or flame. Above the flash point, explosive vapor-air mixtures may be formed.
Fire Extinguishing Media:	Water spray, dry chemical, alcohol foam, or carbon dioxide. Water or foam may cause frothing.
Special Information	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

### Section 6: Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

### Section 7: Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from heat, ignition sources and oxidizing agents. Protect from freezing. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for product.

### Section 8: Exposure Controls/Personal Protection

Airborne Exposure Limits:	None established.
Ventilation System:	Not expected to require any special ventilation.
Personal Respirators (NIOSH Approved):	Not expected to require personal respirator usage.
Skin Protection	Wear protective gloves and clean body-covering clothing.

Eye Protection:	Use chemical safety goggles. Maintain eye wash fountain and quick-drench facility in work area.
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### Section 9: Physical and Chemical Properties

Appearance:	Clear, colorless liquid.
Odor:	Mild
Solubility:	Miscible in water.
Specific Gravity:	1.126 @ 20°C/ 20°C(water=1)
% Volatiles by volume@ 21°C(70°F)	N/A
Boiling Point:	287.78°C(760mmHg)
Vapor Density(Air=1):	5.2
Vapor Pressure(mm Hg):	<0.01 @ 20°C(68°F)
Evaporation Rate (BuAc=1):	0.001

### Section 10: Stability and Reactivity Data

Stability:	Stable under ordinary conditions of use and storage. Hygroscopic.
Hazardous Decomposition Products:	Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization:	Will not occur.
Incompatibilities:	Strong oxidizers.
Conditions to Avoid:	Heat, flames, ignition sources and incompatibles

### Section 11: Toxicological Information

Oral rat LD50: 17gm/kg; investigated as a reproductive effector.

### Section 12: Ecological Information

#### Environmental Fate:

When released into the soil, this material is expected to readily biodegrade.

When released into the soil, this material is expected to leach into groundwater.

When released into the soil, this material is not expected to evaporate significantly.

When released into water, this materials is expected to readily biodegrade.

When released into water, this material is not expected to evaporate significantly.

This material has a log octanol-water partition coefficient of less than 3.0.

This material is not expected to significantly bioaccumulate.

When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals.

When released into the air, this material is expected to have a half-life of less than 1 day.

Environmental Toxicity:

This material is expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.

### Section 13: Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### Section 14: Transport Information

UN number

ADR/RID: - IMDG: - IATA-DGR: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA-DGR: -

Packaging group

ADR/RID: - IMDG: - IATA-DGR: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no

Special precautions for user

Incompatible materials

Zinc

Further information

Not classified as dangerous in the meaning of transport regulations.

### Section 15: Other Regulatory Information

Chemical Weapons Convention: No  
TSCA 12(b): No  
CDTA: No  
SARA 311/312: Acute: Yes  
Chronic: No  
Fire: No  
Pressure: No  
Reactivity: No  
(Pure / Liquid)  
Australian Hazchem Code: No information found.  
Poison Schedule: No information found.  
WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations(CPR) and the MSDS contains all of the information required by the CPR.

**Section 16: Other Information**

NFPA Ratings: Health: 1 Flammability: 1 Reactivity: 0  
Label Hazard Warning:  
**WARNING! CAUSES EYE IRRITATION.** Avoid contact with eyes, skin and clothing  
**MAY CAUSE SKIN IRRITATION.** Label Wash thoroughly after handling.  
Precautions:  
Label First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Call a physician.  
Product Use: Laboratory Reagent.  
Revision Information: New 16 section MSDS format, all sections have been revised.

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we m be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.*