Crystal India

MATERIAL SAFETY DATA SHEET

Date of Issue: 10-7-05 **Reviewed:** FEB 2017 **Authorised By:** Technical Manager

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	TRIETHYLENE GLYCOL
CAS NO.	112-27-6
Other Name:	2-[2-(2-Hydroxyethoxy)ethoxy]ethanol, Triglycol
Product Packaging:	Drums / Tankers
Product Use:	See TEG Application File
Formula:	$C_6H_{14}O_4$
Manufacturer:	M/s Crystal India W114/111/112, MIDC Phase 2, Manpada Dombivali East, District Thane,421204
Emergency Telephone Number:	+91-22-26421194 / 26513841

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Composition

Name: Triethylene Glycol	Cas No.: 112-27-6	% by weight : 100

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

SECTION 3: HAZARD 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.

SECTION 4: FIRST AID MEASURES

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label if applicable.

ACUTE EFFECTS

- SWALLOWED**:**
  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.

- EYE**:**
  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**:**
  No known effect on skin contact, rinse with water for a few minutes

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

- CHRONIC EFFECTS:
  Not Available.

SECTION 5: FIRE AND EXPLOSION DATA

Flash Point	177 °C
Auto Ignition Temp	371°C

Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Stop the leak. Limit spreading by using sand or soil. Provide for very good ventilation. Soak up small quantities of product which may have spread by using absorbent material (Rags, sawdust or other inert material) carrying later the contaminated material to a safe and ventilated area, outside working quarters.

If large quantities of product have spread, prevent it from flowing into drains. Collect it in traps for recovery. Intervene only after having worn suitable protective clothing.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Keep container closed and properly labelled. Store in a cool, dry, ventilated area. Protect the drums from physical damage.

TEG may be employed in the presence or absence of air, water and light with any of the common metals. It is practically non-flammable at normal room temperature. With proper controls, it should be kept neutral in pH.

STORAGE:
Keep containers / drums / barrels in a well ventilated, cool place away from direct sunlight.

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.

PERSONNEL PROTECTION:

Face mask equipped with filter for organic vapours. Gloves, boots and overall with cap suitable to protect Head, Face and Neck. Operate only in well ventilated areas equipped with aspirators at ground level

NOTE:

Separate clothing for work from civil dresses. Wash frequently. Take care of personal Hygiene as better as possible. Appropriate wash apparatus and piping before maintenance.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Formula	$C_6H_{14}O_4$
Physical state at room temperature	Liquid
Appearance	Transparent
Chromatographic Purity (by GC)	99%
Distillation range	Distils between 280°C-300°C
Boiling Point @ 760 mm Hg	288 °C
Moisture	0.2-0.5 % (m/m)
pH	6.5-9.5
Specific gravity at 20°C	1.125-1.1259
Kinematic Viscosity at 25°C	49 Centistokes (cP)
Vapour Density at 15°C	5.17 (Air = 1)
Ash Content	<0.001% (m/m)
Acidity as Acetic Acid	0.0011% (m/m)

SECTION 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.

SECTION 11: TOXICITY INFORMATION

Exposure standards for Triethylene Glycol vapour or mist are:

TWA**:**	None
STEL**:**	None
Oral LD50 (rat):	17 gm/kg. Investigated as a reproductive effector..
Hazard Category:	Harmful
Risk Statement:	R36, 37, 38 & 41. Irritating to eyes, respiratory system, skin, & serious damage to eyes

Ensure adequate ventilation is maintained and exposure below the exposure standards. Local exhaust ventilation should be considered.

At all times wear all safety equipments such as gloves, goggles, overalls, etc. Avoid skin and eye contact and inhalation of vapour

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 products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dump into any sewers, on the ground, or into any body of water. All disposal practices must be in compliance with all federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. We have no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product as shipped in its intended condition as described in msds section.

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

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).
DSCL (EEC): R41- Risk of serious damage to eyes.
HMIS (U.S.A.):
Health Hazard: 1
Fire Hazard: 1
Reactivity: 0
Personal Protection: j
National Fire Protection Association (U.S.A.):
Health: 1
Flammability: 1
Reactivity: 0

Protective Equipment:
Lab coat and Splash goggles.

SECTION 16: OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available.

Created: 10/07/2005 11.15 AM

Last Updated: 25/02/2017 7:00 PM