



Safety Data Sheet

For INDIA, According to GHS (Rev. 8)



TRIETHYLENE GLYCOL (TEG)

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SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

TRIETHYLENE GLYCOL (TEG)
2,2'-(Ethylenedioxy)diethanol; TEG; Triglycol
CAS: 112-27-6

Other means of identification:

Not relevant

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Natural gas dehydration and glycol dehydration systems; humectant and plasticiser in industrial formulations; component of hydraulic and heat-transfer fluids; chemical intermediate; air sanitiser/disinfectant applications in vapour form (industrial). For industrial/commercial user only.
Uses advised against: All uses not specified in this section or in section 7.3.

1.3 Supplier's details:

SURAJ CHEMICALS
No 92, Govindappa Naicken Street, Shiva Complex, Chennai – 600001, Tamil Nadu, India
Tel: +91 - 7092722822, +91 - 9840284032 / +91 - 44 - 25393652, 42130281
Email: sales@surajchemicals.com | Website: www.surajchemicals.com
GST No: 33ACEPV8190L1ZZ

1.4 Emergency phone number:

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS:

Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Based on available data, triethylene glycol does not meet the criteria for classification as hazardous.

Not classified as hazardous under GHS criteria (based on available data).

Note: direct contact with the concentrated liquid may cause mild, transient eye irritation; this does not meet GHS classification criteria – see section 11.

2.2 GHS label elements, including precautionary statements:

GHS: No signal word required

Hazard statements:

None (not classified).

Precautionary statements:

P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/eye protection when handling in bulk.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents/container in accordance with local regulations.

2.3 Other hazards which do not result in classification:

Spilled material is slippery when wetted. Hygroscopic – readily absorbs atmospheric moisture. Not a PBT or vPvB substance.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical description: Triethylene Glycol

In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 112-27-6 EINECS: 203-953-2	Triethylene Glycol — Not classified	≥99% (technical/industrial grade, typical)

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

3.2 Mixtures:

Non-applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Not expected to cause harm under normal conditions of use. Request medical assistance if symptoms occur, showing this SDS.

By inhalation:

Not a likely route of exposure due to low volatility. If mist is inhaled and discomfort occurs, move to fresh air and keep at rest.

By skin contact:

Wash skin with soap and water. Remove contaminated clothing. Seek medical advice if irritation develops (unlikely).

By eye contact:

Rinse immediately with plenty of water for at least 15 minutes, holding eyelids apart. Remove contact lenses, if present and easy to do. Seek medical advice if irritation persists.

By ingestion:

Rinse mouth with water. If large quantities are swallowed and discomfort occurs, seek medical advice. Do not induce vomiting unless directed by medical personnel.

4.2 Most important symptoms/effects, acute and delayed:

No significant adverse effects expected under normal conditions of use. May cause mild, transient eye irritation on direct contact. See section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Not relevant; treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media:**
Suitable: Water spray/fog, foam, dry chemical powder, carbon dioxide (CO²).
Unsuitable: None known.
- 5.2 Specific hazards arising from the chemical:**
Combustible liquid with a high flash point; will not readily ignite under normal ambient conditions. On combustion may release carbon monoxide and carbon dioxide.
- 5.3 Special protective actions for fire-fighters:**
Wear self-contained breathing apparatus and full protective clothing in case of a large fire. Cool fire-exposed containers with water spray.
- Additional provisions:**
Contain fire-fighting water/run-off for appropriate disposal.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures:**
For non-emergency personnel:
Spilled material is slippery – avoid walking through spill. Use PPE described in section 8. Ventilate the area.
For emergency responders:
Wear appropriate PPE as per section 8. No special measures beyond routine good industrial hygiene practice.
- 6.2 Environmental precautions:**
Prevent large spillages from entering drains or watercourses, where it can increase biochemical oxygen demand (BOD). Low acute environmental hazard expected for small quantities.
- 6.3 Methods and materials for containment and cleaning up:**
Contain spillage with absorbent inert material (sand, vermiculite, absorbent granules). Collect into suitable labelled containers for recovery or disposal. Clean residual area with water; take care of slip hazard.
- 6.4 Reference to other sections:**
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling:**
A. General precautions for safe use:
Handle with normal industrial hygiene practice. Avoid prolonged, unnecessary skin and eye contact. Keep containers closed when not in use; the product is hygroscopic and will absorb atmospheric moisture, which can affect concentration-dependent applications such as gas dehydration.
B. Technical recommendations for the prevention of fires and explosions:
No special precautions beyond normal good practice; product is not readily flammable under ambient storage conditions.
C. Technical recommendations on general occupational hygiene:
Do not eat, drink or smoke while handling in bulk industrial settings. Wash hands after handling.
D. Technical recommendations to prevent environmental risks:
Avoid release of bulk quantities to the environment.
- 7.2 Conditions for safe storage, including any incompatibilities:**
A. Specific storage requirements:
- | | |
|---------------|---|
| Minimum Temp. | Ambient (remains liquid well below 0°C) |
| Maximum Temp. | 30°C |
| Maximum time | Typical value – refer to current specification sheet (commonly 24 months, unopened) |
- B. General conditions for storage:**
Store in tightly closed containers in a cool, dry place away from direct sunlight, strong oxidising agents and moisture ingress. For additional information see subsection 10.5.
- 7.3 Specific end use(s):**
Used in natural gas dehydration, as a humectant/plasticiser and as a component of industrial fluids. Except for the instructions already specified, no special recommendation is required.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Control parameters:**
No specific occupational exposure limit (OEL) has been established for triethylene glycol under the Factories Act, 1948 (as amended). A general aerosol/mist nuisance limit is recommended as good practice where the product is handled as a fine mist or aerosol (e.g., in air-sanitising applications).
- | Identification | Occupational Exposure Limit Type | Value |
|-------------------------------------|--|----------------------|
| Triethylene Glycol
CAS: 112-27-6 | Total mist/aerosol, TWA (8 hrs) – good-practice guidance | 10 mg/m ³ |
- 8.2 Appropriate engineering controls:**
General ventilation is normally sufficient. Use local exhaust ventilation if mist/aerosol is generated during processing (e.g., spraying applications).
- B. Respiratory protection:**
Not normally required under normal handling conditions. For mist/aerosol-generating operations, use a particulate filtering respirator.
- C. Specific protection for the hands:**
Chemical-resistant gloves (e.g., nitrile) recommended for prolonged or repeated handling.
- D. Eye and face protection:**
Safety glasses recommended when handling in bulk or where splashing may occur.
- E. Bodily protection:**
Standard industrial workwear; apron where splash exposure is likely.
- F. Additional emergency measures:**
Eyewash station and washing facilities should be available in the work area.
- Environmental exposure controls:**
Avoid large-scale release to the environment. See subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties:**

Appearance	
Physical state at 20°C	Liquid (viscous)
Appearance	Clear, viscous liquid
Color	Colorless to pale yellow

Odor	Odorless to faint
Odour threshold	Not relevant (essentially odorless)
Volatility	
Boiling point at atmospheric pressure	285°C
Vapour pressure at 20°C	<0.01 mbar (negligible)
Evaporation rate at 20°C	Very slow
Product Description	
Density / Relative density at 20°C	1.125 g/cm³
Dynamic / Kinematic viscosity	~37 mPa·s (20°C, typical)
Concentration	≥99% (typical)
pH	~6.5–7.5 (aqueous solution, typical)
Vapour density at 20°C	~5.1 (air = 1)
Partition coefficient n-octanol/water 20°C	Log Pow: ~-1.75
Solubility in water at 20°C	Miscible (complete, hygroscopic)
Decomposition temperature	Typical value – refer to current specification sheet
Melting point/freezing point	-7°C
Flammability	
Flash Point	165°C (closed cup)
Flammability (solid, gas)	Non-applicable (liquid); not readily flammable
Autoignition temperature	~371°C
Lower / Upper flammability limit	Typical value – refer to current specification sheet
Particle Characteristics	
Median equivalent diameter	Non-applicable (liquid)

9.2 Other information:

Explosive properties	Not explosive
Oxidising properties	Not oxidising
Corrosive to metals	Not corrosive to metals
Heat of combustion	Typical value – refer to current specification sheet
Surface tension at 20°C	~45 mN/m (typical)
Refraction index	~1.455

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Stable under normal conditions of use and storage. Hygroscopic – readily absorbs atmospheric moisture. Reacts with strong oxidising agents.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions are not expected.

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Not applicable	Avoid high temperatures (gradual oxidative degradation at elevated temperature)	Avoid prolonged direct exposure	Avoid prolonged exposure to high humidity (hygroscopic, affects concentration)

10.5 Incompatible materials:

Strong Oxidisers	Strong Acids	Strong Alkalis	Heat Sources
Avoid contact	Avoid prolonged contact	Avoid prolonged contact	Keep away

10.6 Hazardous decomposition products:

None expected under normal conditions. Thermal decomposition at high temperature may generate oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Triethylene glycol has a very low order of acute toxicity, consistent with the glycol family, and a long history of safe industrial use.

A. Ingestion (acute effect):

Practically non-toxic; very low acute oral toxicity. Large doses may cause transient gastrointestinal discomfort.

B. Inhalation (acute effect):

Not a likely route of exposure due to low volatility. Mist may cause mild irritation of the respiratory tract at high concentrations.

C. Contact with skin and eyes (acute effect):

Not expected to be irritating to skin under normal conditions of use. May cause mild, transient eye irritation on direct contact.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity):

Classification criteria for carcinogenicity, mutagenicity and reproductive toxicity are not met based on available data. IARC: Not listed.

E. Sensitizing effects:

Classification criteria for respiratory or skin sensitisation are not met based on available data.

F. Specific target organ toxicity (STOT) – single exposure:

Classification criteria are not met based on available data.

G. Specific target organ toxicity (STOT) – repeated exposure:

Classification criteria are not met based on available data.

H. Aspiration hazard:

Classification criteria are not met based on available data.

Product-specific toxicological information:

Identification	Acute Toxicity	Genus
Triethylene Glycol CAS: 112-27-6	LD50 oral: ~17,400–22,000 mg/kg (practically non-toxic)	Rat
	LD50 dermal: >20000 mg/kg	Rabbit

SECTION 12: ECOLOGICAL INFORMATION

Not expected to be hazardous to the aquatic environment at use concentrations; readily biodegradable.

12.1 Toxicity:

Acute Toxicity	Species	Genus
LC50: >10000 mg/L (96h)	Non-applicable	Fish
EC50: Typical value – refer to current specification sheet (>1000 mg/L range, low hazard)	Non-applicable	Crustacean

12.2 Persistence and degradability:

Readily biodegradable (passes standard OECD ready biodegradability criteria).

12.3 Bioaccumulative potential:

Low bioaccumulation potential (log Pow ~-1.75, hydrophilic); not expected to bioaccumulate.

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
Low	Low	High mobility	High mobility

12.5 Results of PBT and vPvB assessment:

Does not meet PBT/vPvB criteria.

12.6 Other adverse effects:

May increase biochemical oxygen demand (BOD) of receiving waters in large discharges.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Dispose of in accordance with local, state and national regulations. Where possible, recover/recycle. Do not discharge large quantities to drains or water courses. Empty containers may retain product residue – handle accordingly.
Refer to national and local regulations on waste management.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023):

14.1 UN number	Not regulated as dangerous goods
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22):

14.1 UN number	Not regulated as dangerous goods
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	N/A
14.5 Marine pollutant	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by air (IATA/ICAO 2024):

14.1 UN number	Not regulated as dangerous goods
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (not applicable – product not classified as hazardous)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3:

Not classified – no hazard statements apply to this product.

Advice related to training:

Minimal training is recommended to familiarise staff handling this product with good industrial hygiene practice and the contents of this safety data sheet.

Principal bibliographical sources:

Published GHS classification references and standard commercial/regulatory SDS databases for Triethylene Glycol, CAS 112-27-6.

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | BOD: Biochemical Oxygen Demand | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | Log-POW: Octanol-water partition coefficient | Koc: Partition coefficient of organic carbon | IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET