MATERIAL SAFETY DATA SHEET

Virgin Tri Ethylene Glycol (TEG)

Prepared according to GHS / ISO 11014 / EC 1907-2006 Annex II · Ref. MSDS-VIRGIN-TEG · 2026-08-23 (Rev. 1.0)

Section 1 — Identification of the substance and the supplier

Product name	Virgin Tri Ethylene Glycol (TEG)
Chemical name	Tri Ethylene Glycol
Trade name	Virgin Tri Ethylene Glycol (TEG)
Product category	Petrochemical Products — Industrial
CAS number	112-27-6
HS code	2909.49
Chemical formula	C6H14O4
Recommended use	Natural gas dehydration; Dehumidification; Solvent and plasticiser use
Supplier	Chemicalsexpo, No. 10, Western Farvardin Alley, Asteraki St., Sardar Jangal Blvd., Punak, Tehran, Iran
Emergency telephone	+98 912 398 79 56 · +98 910 398 27 07 (business hours) · national poison centre for medical emergencies

Section 2 — Hazards identification

GHS signal word: None

Pictograms: None required

Hazard statements:

- Not classified as hazardous under GHS. Combustible liquid; avoid prolonged skin contact and mist inhalation.

Precautionary statements:

- P264 — Wash hands thoroughly after handling.
- P270 — Do not eat, drink or smoke when using this product.
- P301+P312 — IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
- P280 — Wear protective gloves and eye protection.
- P501 — Dispose of contents and container to an approved waste facility.

Section 3 — Composition / information on ingredients

Component	CAS No.	Concentration	Classification
Tri Ethylene Glycol	112-27-6	min 98%	Not classified

Section 4 — First-aid measures

- Inhalation: move the casualty to fresh air and keep at rest in a position comfortable for breathing. Give oxygen if breathing is difficult and obtain medical attention if symptoms persist.
- Skin contact: remove contaminated clothing immediately and wash the affected area with plenty of water for at least 15 minutes. Seek medical attention if irritation or burns develop.
- Eye contact: rinse cautiously with water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Obtain medical attention.
- Ingestion: rinse the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain immediate medical attention and show this data sheet.

- Note to physician: treat symptomatically. Low acute toxicity — oral LD50 (rat) > 12 000 mg/kg. Slight eye irritation possible. Not a sensitiser and not classified as a carcinogen.

Section 5 — Fire-fighting measures

Suitable extinguishing media	Alcohol-resistant foam, dry chemical powder, carbon dioxide or water spray. Do not use a solid water jet.
Specific hazards	Combustible liquid. Heated above the flash point it forms flammable vapour/air mixtures. Combustion generates carbon monoxide and carbon dioxide.
Protection for fire-fighters	Self-contained breathing apparatus and full protective clothing. Cool exposed containers with water spray from a protected position.

Section 6 — Accidental release measures

- Personal precautions: evacuate unnecessary personnel, ventilate the area and wear the personal protective equipment described in section 8.
- Environmental precautions: Readily biodegradable, low bioaccumulation potential (log Kow < 1). Prevent entry into drains, soil and watercourses and inform the authorities if a release occurs.
- Containment and clean-up: Eliminate all ignition sources. Ventilate the area. Contain the spill with sand, earth or inert absorbent, collect into labelled closed containers for disposal, and prevent entry into drains, soil or waterways.

Section 7 — Handling and storage

Safe handling	Handle in a well-ventilated area. Keep containers closed. Use nitrogen blanketing for bulk storage to protect colour and prevent moisture pick-up. Carbon steel, stainless steel or aluminium equipment is suitable.
Storage conditions	Cool, dry, well-ventilated area away from direct sunlight and ignition sources
Packaging	Drums, IBC, flexi-tank, ISO tank or bulk
Incompatible materials	Strong oxidising agents, strong acids and bases, isocyanates, chlorosulfonic acid.

Section 8 — Exposure controls / personal protection

Occupational exposure limits	Aerosol/vapour: 10 mg/m³ (ACGIH TLV ceiling for ethylene glycol aerosol). Keep airborne concentration as low as reasonably practicable.
Engineering controls	Local exhaust ventilation at points of emission, general dilution ventilation, and eyewash / safety shower stations in the handling area.
Personal protective equipment	Chemical goggles, nitrile or butyl rubber gloves, chemical-resistant apron and general ventilation. Respiratory protection where mist may form.

Section 9 — Physical and chemical properties

Physical state	Liquid
Colour	Clear, colourless
Odour	Practically odourless
pH	6.0 – 7.5 (neutral in aqueous solution)
Boiling point / range	285 – 288 °C
Melting / freezing point	−7 °C
Flash point	177 °C (closed cup)
Auto-ignition temperature	> 380 °C
Explosion limits	approx. 3.2 – 15.3 vol% in air
Vapour pressure	< 0.01 mmHg @ 20 °C

Density	1.123 – 1.126 g/cm³ @ 20 °C
Solubility in water	Completely miscible with water in all proportions

Section 10 — Stability and reactivity

Chemical stability	Stable under the recommended storage and handling conditions.
Conditions to avoid	Heat, ignition sources, direct sunlight and moisture ingress (as applicable to this product).
Incompatible materials	Strong oxidising agents, strong acids and bases, isocyanates, chlorosulfonic acid.
Hazardous decomposition products	Thermal decomposition releases carbon monoxide, carbon dioxide, aldehydes and irritating vapours.
Possibility of hazardous reactions	No hazardous polymerisation or runaway reaction under normal conditions of use.

Section 11 — Toxicological information

Low acute toxicity — oral LD50 (rat) > 12 000 mg/kg. Slight eye irritation possible. Not a sensitiser and not classified as a carcinogen.

Section 12 — Ecological information

Readily biodegradable, low bioaccumulation potential (log Kow < 1). Not classified as hazardous to the aquatic environment, but large releases exert a high biochemical oxygen demand.

Section 13 — Disposal considerations

Dispose of the product and contaminated packaging through a licensed waste contractor in accordance with local, national and international regulations. Do not discharge to drains, soil or surface water. Empty containers retain product residue and must be handled as hazardous waste unless professionally cleaned.

Section 14 — Transport information

Not classified as a dangerous good under ADR / RID / IMDG / IATA. Transport in closed, labelled containers and protect from physical damage.

Section 15 — Regulatory information

Not restricted for transport. Ethylene glycol is a listed substance in several national inventories — check local reporting thresholds.

Section 16 — Other information

Document reference	MSDS-VIRGIN-TEG
Issue date	2026-08-23
Revision	1.0 — first issue in this format
Issued by	Chemicalsexpo — HSE & Quality Department
Contact	info@chemicalsexpo.com · +98 912 398 79 56 · +98 910 398 27 07

The information in this safety data sheet is based on the present state of our knowledge and applies to the product as supplied. It describes the product in terms of safety requirements and does not constitute a guarantee of properties. The user remains responsible for safe use, storage and disposal in its own operations.