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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Triethylene Glycol (TEG)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	Triethylene Glycol (TEG)
Synonyms	Tri Ethylene Glycol; 2,2'-(ethylenedioxy)diethanol
CAS No.	112-27-6
EC No.	203-953-2
Molecular formula	C6H14O4
Molecular weight	150.17 g/mol
Relevant identified uses	For industry use; specific commercial applications No data available
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
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Website	www.richest-group.com
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SECTION 2: Hazards identification

GHS Classification	Not a hazardous substance or mixture (supplier SDS; ECHA C&L majority not classified)
Pictogram(s)	None
Signal word	None
Hazard statement(s)	None
Precautionary statement(s)	None
Other hazards	No listed effects of short-term or long-term exposure; [ICSC] A mild skin and eye irritant based on animal studies; [MSDSonline] See Ethylene glycols.

SECTION 3: Composition/information on ingredients

Component	Triethylene Glycol (TEG)
CAS No.	112-27-6
EC No.	203-953-2
Classification	Not a hazardous substance or mixture (supplier SDS; ECHA C&L majority not classified)
Concentration	Triethylene glycol ≥99%

SECTION 4: First-aid measures	
If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere.
In case of skin contact	IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.
If swallowed	DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	Alcohol foam, dry chemical
Unsuitable extinguishing media	Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing.
Special hazards arising from the chemical	This chemical is combustible. (NTP, 1992)
Advice for firefighters	Wear self-contained breathing apparatus and protective clothing appropriate for the surrounding fire.

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

SECTION 7: Handling and storage	
Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation or inhalation of dust, mist or vapour as applicable. Wash thoroughly after handling.
Conditions for safe storage, including incompatibilities	Stored in a dry and ventilated place, away from heat and water; keep tightly closed.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	(inhalable fraction): 1000 mg/m³
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide adequate ventilation. Eyewash facilities should be available where contact is possible.
Eye/face protection	Goggles; plastic gloves. (USCG, 1999)
Skin and body protection	Goggles; plastic gloves. (USCG, 1999)
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties	
Physical state	Clear, viscous liquid
Colour	colorless
Odour	odorless
Melting point / freezing point	−7°C
Boiling point / boiling range	286.5°C at 1013 hPa
Flammability	This chemical is combustible. (NTP, 1992)
Explosion / flammability limits	LEL: 0.9 % (NTP, 1992); UEL: 9.2 % (NTP, 1992)
Flash point	166°C closed cup
Auto-ignition temperature	347°C
Decomposition temperature	No data available
pH	6.5–7.5 at 100 g/L at 20°C
Viscosity	47.8 mPa·s at 20°C
Solubility	1000 g/L at 20°C; completely miscible
Partition coefficient n-octanol/water	log Kow = -1.98
Vapour pressure	Vapor pressure, Pa at 20 °C: 0.02
Density and/or relative density	1.13 g/cm³ at 15°C
Relative vapour density	5.17 (NTP, 1992) - Heavier than air; will sink (Relative to Air)
Particle characteristics	Not applicable (liquid).
Refractive index	Index of refraction: 1.4531 at 15 °C/D

SECTION 10: Stability and reactivity	
Reactivity	Water soluble.
Chemical stability	Stable under recommended storage conditions.

SECTION 10: Stability and reactivity

Possibility of hazardous reactions	TRIETHYLENE GLYCOL is a ether-alcohol derivative. The ether being relatively unreactive. Flammable and/or toxic gases are generated by the combination of alcohols with alkali metals, nitrides, and strong reducing agents. They react with oxoacids and carboxylic acids to form esters plus water. Oxidizing agents convert alcohols to aldehydes or ketones.
Conditions to avoid	NO open flames.
Incompatible materials	Can react with oxidizing materials.; Glycol ethers, glycols, ketones, and alcohols undergo violent decomposition in contact with 68-72% perchloric acid
Hazardous decomposition products	When heated to decomposition it emits acrid smoke and irritating fumes.

SECTION 11: Toxicological information

Acute toxicity	LD50 Mouse oral 18,500 mg/kg; LD50 Mouse iv 6,500 mg/kg; LD50 Mouse (female) ip 8.15 g/kg; LD50 Mouse sc 8,750 mg/kg
Toxicological summary	Triethylene glycol (TEG) is a liquid higher glycol of very low vapor pressure with uses that are primarily industrial. It has a very low order of acute toxicity by iv, ip, peroral, percutaneous and inhalation (vapor and aerosol) routes of exposure. It does not produce primary skin iritation. Acute eye contact with the liquid causes mild local transient irritation (conjunctival hyperemia and slight chemosis) but does not induce corneal injury. Animal maximization and human volunteer repeated insult patch tests studies have shown that TEG does not cause skin sensitization.
Health effects	Vapor and liquid are unlikely to cause harm. (USCG, 1999)

SECTION 12: Ecological information

Ecotoxicity	LC50 Menidia beryllina /(Inland silverside)/ >10,000 ppm/96 hr (static bioassay in synthetic seawater at 23 °C, mild aeration applied after 24 hr).; LC50 Pimephales promelas (Fathead minnow) 70.2 g/L/96 hr (confidence limit 68.6 - 71.9 g/L), flow-through bioassay with measured concentrations, 22.2 °C, dissolved oxygen 6.4 mg/L, hardness 45.0 mg/L calcium carbonate, alkalinity 37.7 mg/L calcium carbonate, and pH 7.3
Persistence degradability	AEROBIC: Aerobic river die-away tests, utilizing several different sources of freshwater, have demonstrated that triethylene glycol should biodegrade rapidly in the environment(1). At 20 °C, the degradation of 10 mg/L triethylene glycol was complete within 7-11 days(1).
Bioaccumulative potential	An estimated BCF of 3 was calculated in fish for triethylene glycol(SRC), using an estimated log Kow of -1.75(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).
Mobility in soil	Using a structure estimation method based on molecular connectivity indices(1), the Koc of triethylene glycol can be estimated to be 10(SRC). According to a classification scheme(2), this estimated Koc value suggests that triethylene glycol is expected to have very high mobility in soil(SRC).
Other adverse effects	The rate constant for the vapor-phase reaction of triethylene glycol with photochemically-produced hydroxyl radicals has been estimated as 3.6X10-11 cu cm/molecule-sec at 25 °C(SRC) using a structure estimation method(1). This corresponds to an atmospheric half-life of about 11 hours at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm(1).
Environmental fate	ATMOSPHERIC FATE: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere(1), triethylene glycol, which has a vapor pressure of 1.32X10-3 mm Hg at 25 °C(2), is expected to exist solely as a vapor in the ambient atmosphere.

SECTION 13: Disposal considerations

Product disposal methods	SRP: The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational exposure or environmental contamination. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	No
Special precautions for user	Keep containers closed and secured during transport. Follow local transport requirements.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	The use of triethylene glycol in cosmetic products is not restricted in Japan. It is also not restricted in any way under the rules governming cosmetic products in the European Union

SECTION 16: Other information

Full text of H-Statements	None
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: PubChem Triethylene Glycol (CID 8172): https://pubchem.ncbi.nlm.nih.gov/compound/8172
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.