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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product: Diethylene Glycol (DEG)	**Revision date:** 2026-10-29	**Version:** 1.0	**Brand:** Richest

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

Product name	Diethylene Glycol (DEG)
Synonyms	2,2'-Oxydiethanol; Diglycol; Bis(2-hydroxyethyl)ether
CAS No.	111-46-6
EC No.	203-872-2
Molecular formula	C4H10O3
Molecular weight	106.12 g/mol
Relevant identified uses	Raw material for unsaturated polyester resins, polyurethanes and plasticizers; solvent; humectant; gas dehydration; antifreeze formulations
Uses advised against	None
Company	Richest Group Ltd.
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SECTION 2: Hazards identification

GHS Classification	Acute Tox. 4 (Oral)
Pictogram(s)	GHS07 (Exclamation mark)
Signal word	Warning
Hazard statement(s)	H302 Harmful if swallowed.
Precautionary statement(s)	P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/doctor if you

	feel unwell. Rinse mouth. P501 Dispose of contents/container to an approved waste disposal plant.
Other hazards	None known.

SECTION 3: Composition/information on ingredients

Component	Diethylene glycol
CAS No.	111-46-6
EC No.	203-872-2
Classification	Acute Tox. 4; H302
Concentration (%)	≥99.0 %

SECTION 4: First aid measures

If inhaled	Remove to fresh air. Call a physician if you feel unwell.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.
In case of eye contact	Rinse cautiously with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Call an ophthalmologist.
If swallowed	Immediately make victim drink water (two glasses at most). Do not induce vomiting. Consult a physician.
Most important symptoms and effects	Harmful if swallowed; may cause nausea, vomiting and abdominal pain.
Indication of any immediate medical attention	Treat symptomatically. Show this safety data sheet to the doctor in attendance.

SECTION 5: Firefighting measures

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO2)
Unsuitable extinguishing media	None
Special hazards arising from the chemical	Combustible. Development of hazardous combustion gases or vapours (carbon oxides) possible in the event of fire.
Advice for firefighters	Wear self-contained breathing apparatus and full protective clothing for firefighting. Cool closed containers exposed to fire with water spray.

SECTION 6: Accidental release measures

Personal precautions, protective	Use personal protective equipment. Avoid breathing vapors, mist or gas.

equipment and emergency procedures	Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions	Do not let product enter drains. Prevent further leakage or spillage if safe to do so.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material (e.g. sand, vermiculite). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Ensure adequate ventilation. Wash hands thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a cool, dry and well-ventilated place. Keep away from strong oxidizing agents and strong acids.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	AIHA WEEL: 10 mg/m3 (TWA)
Biological limit values	No biological exposure index (BEI) established.
Appropriate engineering controls	Ensure adequate ventilation. Provide eye wash stations and safety showers close to the workstation.
Eye/face protection	Wear tightly fitting safety goggles/face shield.
Skin protection	Wear suitable protective gloves (e.g. butyl rubber, nitrile rubber).
Body protection	Wear appropriate protective clothing to prevent skin contact.
Respiratory protection	Where ventilation is inadequate, wear a suitable respirator with organic vapor filter.
Thermal hazards	No specific thermal hazards under normal conditions of use.

SECTION 9: Physical and chemical properties

Physical state	Liquid, viscous
Colour	Colorless
Odour	Odorless
Melting point / freezing point	-6.5 °C
Boiling point or initial boiling point and boiling range	244.9 °C at 1,013 hPa
Flammability	Combustible; not classified as flammable liquid (flash point > 60 °C)

Lower and upper explosion limit / flammability limit	Lower: 1.7 % (V); Upper: 37 % (V)
Flash point	138 °C - closed cup
Auto-ignition temperature	372 °C
Decomposition temperature	Distillable in an undecomposed state at normal pressure
pH	6-8 at 200 g/l at 20 °C
Kinematic viscosity	ca. 27 mm2/s at 25 °C (dynamic viscosity 30 mPa.s)
Solubility	Water: 1,000 g/l at 20 °C - miscible
Partition coefficient n-octanol/water	log Pow: -1.98 at 25 °C
Vapour pressure	< 0.1 hPa at 25 °C
Density and/or relative density	1.118 g/cm3 at 20 °C
Relative vapour density	3.66 (Air = 1.0)
Particle characteristics	Not applicable (liquid)

SECTION 10: Stability and reactivity

Reactivity	Violent reactions possible with strong oxidizing agents; exothermic reaction with strong acids
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Forms explosive mixtures with air on intense heating
Conditions to avoid	Intense heating; contact with incompatible materials
Incompatible materials	Strong oxidizing agents, strong acids
Hazardous decomposition products	Carbon oxides

SECTION 11: Toxicological information

Acute toxicity - Oral / Inhalation / Dermal	LD50 Oral - Rat: 12,565 mg/kg; LD50 Dermal - Rabbit: 11,890 mg/kg; Inhalation: practically non-toxic (very low vapour pressure at room temperature)
Skin corrosion/irritation	Rabbit - no skin irritation
Serious eye damage/irritation	Rabbit - slight to no eye irritation
Respiratory or skin sensitization	Not classified as a sensitizer
Germ cell mutagenicity	Not mutagenic in standard in-vitro assays (Ames test negative)

Carcinogenicity	Not listed by IARC, NTP, ACGIH or OSHA as a carcinogen
Reproductive toxicity	Not classified based on available data
STOT - single exposure	Not classified
STOT - repeated exposure	Kidney effects reported at high repeated doses (not classified)
Aspiration hazard	Not classified (kinematic viscosity > 20.5 mm2/s)

SECTION 12: Ecological information

Toxicity to fish / daphnia / algae	Fish: LC50 - Pimephales promelas (fathead minnow) - 75,200 mg/l - 96 h; Daphnia: EC50 - Daphnia magna - > 10,000 mg/l - 24 h; practically non-toxic to aquatic organisms
Persistence and degradability	Readily biodegradable (aerobic)
Bioaccumulative potential	log Pow: -1.98; bioaccumulation is not expected
Mobility in soil	Highly mobile in soil (very high water solubility, low log Koc)
Other adverse effects	None known

SECTION 13: Disposal considerations

Product disposal methods	Offer surplus and non-recyclable product to a licensed disposal company. Dispose of in accordance with local and national regulations.
Contaminated packaging	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not dangerous goods
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Environmental hazards (Marine pollutant)	No
Special precautions for user	No special precautions required during transport.

SECTION 15: Regulatory information

Safety, health and environmental	EINECS: Listed (203-872-2) / TSCA: Listed / IECSC: Listed / China Catalog

regulations specific for the product	of Hazardous Chemicals 2015: Not listed

SECTION 16: Other information

Full text of H-Statements	H302 Harmful if swallowed.
Revision date	2026-10-29
Version	1.0

Abbreviations and acronyms: CAS: Chemical Abstracts Service; EC: European Commission; EINECS: European Inventory of Existing Commercial Chemical Substances; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; RID: Regulation concerning the International Carriage of Dangerous Goods by Rail; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; TWA: Time Weighted Average; STEL: Short Term Exposure Limit; LD50: Lethal Dose 50%; LC50: Lethal Concentration 50%; EC50: Effective Concentration 50%; PBT: Persistent, Bioaccumulative and Toxic; vPvB: very Persistent and very Bioaccumulative; SDS: Safety Data Sheet.

References: ECHA - European Chemicals Agency, https://echa.europa.eu/; IPCS - International Chemical Safety Cards (ICSC), http://www.ilo.org/; HSDB - Hazardous Substances Data Bank; eChemPortal - OECD Global Portal to Information on Chemical Substances; ERG - Emergency Response Guidebook by U.S. DOT.

Disclaimer: The information in this SDS is only applicable to the specified product and is provided in good faith. It is based on the knowledge available to Richest Group Ltd. at the date of issue and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not constitute any guarantee of the properties of the product. Richest Group Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.