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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Polyethylene Glycol 400 Monooleate (PEG400MO / PEG-8 Monooleate)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

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

Product name	Polyethylene Glycol 400 Monooleate (PEG400MO / PEG-8 Monooleate)
Synonyms	PEG 400 Monooleate; PEG400MO; PEG-8 Monooleate; PEG-8 Oleate; Polyethylene Glycol (400) Monooleate; Polyoxyethylene Monooleate; Polyethylene Glycol Monooleate; PEGMO
CAS No.	9004-96-0
EC No.	500-015-7
Molecular formula	Not applicable (mixture)
Molecular weight	Not applicable (oligomer distribution); '400' identifies the nominal polyethylene glycol component, not a fixed molecular weight of the monoester product
Relevant identified uses	Nonionic emulsifier, wetting agent and dispersant; Industrial and textile lubricant and softener; Vinyl-plastisol viscosity stabilizer and industrial degreaser component; Emulsifier for oil-based cutting fluids, pesticide formulations, coatings and cleaning products
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	0086 21 5017 5386
E-mail	inquiry@richest-group.com
Website	www.richest-group.com
Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Not classified in the cited public SDS; no pictogram, no signal word and no hazard statements. Final classification is subject to the Richest product-specific SDS.
Pictogram(s)	None
Signal word	None
Hazard statement(s)	None
Precautionary statement(s)	None
Other hazards	No other hazards were identified in the reviewed sources.

SECTION 3: Composition/information on ingredients

Component	Polyethylene Glycol 400 Monooleate (PEG400MO / PEG-8 Monooleate)
CAS No.	9004-96-0
EC No.	500-015-7

SECTION 3: Composition/information on ingredients

Classification	Not classified in the cited public SDS; no pictogram, no signal word and no hazard statements. Final classification is subject to the Richest product-specific SDS.
Concentration	Content ≥99% (public typical specification)

SECTION 4: First-aid measures

If inhaled	Move to fresh air after inhalation.
In case of skin contact	Remove contaminated clothing and wash skin with soap and plenty of water.
In case of eye contact	Rinse eyes with clean water for at least 15 minutes.
If swallowed	After ingestion rinse mouth, do not induce vomiting and contact a doctor or poison center.
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	Use dry chemical, carbon dioxide or alcohol-resistant foam. Firefighters should wear self-contained breathing apparatus if necessary.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	PEG400MO (MULSIFAN 400 MO): Fire-exposed containers may rupture from internal pressure; cool containers with water. PEG-8 oleate (RADIASURF 7403 and ESTEROL 241): Combustion can generate carbon monoxide and carbon dioxide.
Advice for firefighters	PEG-8 oleate (ESTEROL 241): Use self-contained breathing apparatus when required.

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	Ventilate, avoid breathing mist or vapor and avoid skin/eye contact. Wear impermeable gloves, prevent entry to drains and collect the material in suitable closed containers for authorized disposal.

SECTION 7: Handling and storage

Precautions for safe handling	Handle in a well-ventilated place with suitable protective clothing. Avoid skin and eye contact and aerosol formation. Keep the container tightly closed in a dry, cool and well-ventilated place.
Conditions for safe storage, including incompatibilities	Keep tightly closed in a dry, cool and ventilated place, separated from food and incompatible materials. Public manufacturer shelf life: two years.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	No data available
Biological limit values	No biological limit values were identified in the reviewed sources.

SECTION 8: Exposure controls/personal protection	
Appropriate engineering controls	No occupational or biological exposure limits are stated in the public SDS. Provide adequate ventilation; wear tightly fitting safety goggles and suitable impervious gloves. Use respiratory protection if exposure limits or irritation are encountered.
Eye/face protection	Use safety eyewear appropriate to the risk of exposure.
Skin and body protection	Wear suitable protective gloves and clothing appropriate to the risk of exposure.
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	Not established
Colour	PEG400MO (MULSIFAN 400 MO): Clear to slightly hazy, yellow to amber liquid. PEG-8 oleate (RADIASURF 7403): Yellow to amber liquid. PEG-8 oleate (ESTEROL 241): Yellow to amber liquid; its TDS specifies Gardner colour 7.
Odour	PEG400MO (MULSIFAN 400 MO): Fatty odour. PEG-8 oleate (RADIASURF 7403): Sweet, characteristic odour. PEG-8 oleate (ESTEROL 241): Mild fatty odour.
Melting point / freezing point	PEG400MO (MULSIFAN 400 MO): Melting point/freezing point below 5.6 deg C. PEG-8 oleate (RADIASURF 7403): Approximately -5 deg C. PEG-8 oleate (ESTEROL 241): Below 0 deg C.
Boiling point / boiling range	034 g/mL at 25°C, flash point >113°C and boiling point >260°C (literature), soluble in toluene, ethanol and acetone and dispersible in water
Flammability	PEG-8 oleate (RADIASURF 7403): Combustible. The SDS reports no direct explosion hazard, but fire or explosion risk increases when heated, particularly above the flash point.
Explosion / flammability limits	No data available
Flash point	034 g/mL at 25°C, flash point >113°C and boiling point >260°C (literature), soluble in toluene, ethanol and acetone and dispersible in water
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	The public SDS lists physical state oil, density 1.
Viscosity	PEG-8 oleate (RADIASURF 7403): Kinematic viscosity approximately 49 mm2/s at 40 deg C and approximately 9.5 mm2/s at 100 deg C.
Solubility	PEG400MO (MULSIFAN 400 MO): Dispersible in water. PEG-8 oleate (RADIASURF 7403): Soluble in water and most organic solvents. PEG-8 oleate (ESTEROL 241): Dispersible in water; its TDS reports solubility in most oils.
Partition coefficient n-octanol/water	PEG400MO (MULSIFAN 400 MO): log Pow approximately 5.94, literature value. PEG-8 oleate (RADIASURF 7403): log Pow 8.27, OECD 117.
Vapour pressure	PEG400MO (MULSIFAN 400 MO): Less than 0.01 mmHg at 20 deg C.
Density and/or relative density	The public SDS lists physical state oil, density 1.
Relative vapour density	No data available
Particle characteristics	No data available
Additional information	Amber oily liquid. The public SDS lists physical state oil, density 1.034 g/mL at 25°C, flash point >113°C and boiling point >260°C (literature), soluble in toluene, ethanol and acetone and dispersible in water; these are SDS data, not release specifications.

SECTION 10: Stability and reactivity	
Reactivity	No data available
Chemical stability	PEG400MO (MULSIFAN 400 MO): Stable under ordinary conditions of use and storage. PEG-8 oleate (RADIASURF 7403): Stable under normal conditions. PEG-8 oleate (ESTEROL 241): Stable under normal conditions of use.
Possibility of hazardous reactions	PEG400MO (MULSIFAN 400 MO): Hazardous polymerisation will not occur. PEG-8 oleate (ESTEROL 241): No hazardous reactions when stored and handled correctly.
Conditions to avoid	PEG400MO (MULSIFAN 400 MO): Avoid moist air or water and high temperatures with incompatible materials. PEG-8 oleate (ESTEROL 241): Avoid excessive heat and fire; store below 40 deg C in the original container according to its TDS.
Incompatible materials	PEG400MO (MULSIFAN 400 MO): Strong oxidising agents, strong acids and strong bases, particularly at elevated temperature. PEG-8 oleate (ESTEROL 241): Strong oxidising agents.
Hazardous decomposition products	PEG400MO (MULSIFAN 400 MO): Very high temperatures can produce carbon oxides; thermal decomposition can produce irritating aldehydes. PEG-8 oleate (RADIASURF 7403): Combustion releases carbon monoxide and carbon dioxide. PEG-8 oleate (ESTEROL 241): No hazardous decomposition products when stored and handled correctly; combustion can produce carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information	
Toxicological summary	GHS health-hazard classification from the reviewed public SDS: Not classified in the cited public SDS; no pictogram, no signal word and no hazard statements. Final classification is subject to the Richest product-specific SDS.; None

SECTION 12: Ecological information	
Aquatic hazard classification	Not classified as hazardous to the aquatic environment in the reviewed public SDS.

SECTION 13: Disposal considerations	
Product disposal methods	Send residues to a licensed chemical destruction facility or controlled incineration with flue-gas scrubbing where permitted. Do not discharge to sewer systems; manage contaminated packaging under local regulations.
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	See cited public SDS
Special precautions for user	ADR/RID, IMDG and IATA: Not dangerous goods in the cited public SDS, which expressly states 'For reference only, please check'; no transport environmental hazard is indicated there. Final shipment classification is subject to the Richest SDS.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	No food, cosmetic or pharmaceutical compliance status is claimed. Confirm inventory status, ethoxylation-related impurity requirements and destination restrictions against the final supplier documentation.

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: Polyethylene glycol Aliphatic ester — PEG400MO technical index: http://www.jshihua.com/product_detail_en/id/33.html | No data available: https://www.guolichem.com/products/400MO | PEG400 MO — Polyethylene Glycol Monooleate: https://sundav.com/index.php?a=index&aid=182&c=View&lang=en&m=home | Polyethylene glycol monooleate Safety Data Sheet: https://www.chemicalbook.com/msds/polyethylene-glycol-monooleate.htm | Poly(ethylene glycol) monooleate — CID 5364420: https://pubchem.ncbi.nlm.nih.gov/compound/5364420 | MULSIFAN 400 MO Safety Data Sheet: https://tandcweb.com/zslubes/documents-pdf/Metalworking-SDS/MULSIFAN%20400%20MO%20%20SDS%20%204%2030%2019.pdf | RADIASURF 7403 Safety Data Sheet: https://www.oleon.com/media/2gxc3mfs/sds-eu-7403-radiasurf-7403-en-v0215.pdf | ESTEROL 241 Safety Data Sheet: https://www.vicchem.com/prods/msds/sds%20esterol%20241.pdf | ESTEROL 241 Product Data Bulletin: http://www.vicchem.com/prods/pdb/pdb-ESTEROL241.pdf
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.