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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Epoxidized Soybean Oil (ESBO) Epoxy Value 6.6% Min	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

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

Product name	Epoxidized Soybean Oil (ESBO) Epoxy Value 6.6% Min
Synonyms	Epoxidized soya bean oil; Soybean oil, epoxidized; Epoxidized soybean oil; ESO; ESBO
CAS No.	8013-07-8
EC No.	232-391-0
Molecular formula	UVCB substance; epoxidized soybean oil has no single fixed molecular formula
Molecular weight	Not applicable to this UVCB natural-oil derivative; no single molecular weight is assigned
Relevant identified uses	Secondary plasticizer and heat costabilizer for flexible PVC films and sheets; PVC artificial leather, flooring, hoses and wire-and-cable compounds; Coated fabrics, plastisols, toys and general flexible PVC articles; Acid scavenger and modifier for specialty coatings, adhesives and inks
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
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SECTION 2: Hazards identification

GHS Classification	Not classified under UN GHS Revision 8 in the public ESBO 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	Epoxidized Soybean Oil (ESBO) Epoxy Value 6.6% Min
CAS No.	8013-07-8
EC No.	232-391-0
Classification	Not classified under UN GHS Revision 8 in the public ESBO SDS
Concentration	UVCB product; quality controlled by epoxy value ≥6.6% rather than a single-component assay

SECTION 4: First-aid measures	
If inhaled	Inhalation: move to fresh air
In case of skin contact	Skin: remove contaminated clothing and wash with soap and plenty of water.
In case of eye contact	Eyes: rinse with clean water for at least 15 minutes and consult a physician.
If swallowed	Ingestion: rinse the mouth and seek medical advice if unwell.
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. Wear self-contained breathing apparatus when necessary, remove ignition sources where safe, and prevent fire water and residues from entering drains.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	No data available
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	Ventilate and keep personnel away from the spill area. Wear chemical-resistant gloves and eye protection, avoid mist inhalation and skin/eye contact, prevent entry into drains, and collect the liquid in suitable closed containers for disposal.

SECTION 7: Handling and storage	
Precautions for safe handling	Handle in a well-ventilated area using suitable protective clothing. Avoid skin and eye contact and aerosol formation, use non-sparking tools and prevent static discharge. Keep containers closed when not in use.
Conditions for safe storage, including incompatibilities	Keep tightly closed in a dry, cool, clean and well-ventilated warehouse, away from food, incompatible materials, direct light and excessive heat. Protect containers from leakage and rain. Jiaao states normal storage of over one year; actual shelf life must be confirmed on the Richest COA.

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.
Appropriate engineering controls	No occupational exposure limit is assigned in the selected public SDS. Provide effective ventilation, emergency exit/eyewash access, chemical-resistant gloves and goggles; select respiratory protection for mist through a workplace risk assessment.
Eye/face protection	Use safety eyewear appropriate to the risk of exposure.

SECTION 8: Exposure controls/personal protection	
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	Light yellow clear liquid (common to cited candidate COAs)
Colour	Light amber to light yellow viscous liquid. Valtris lists Plas-Chek 775 as amber/light amber; the C.P. Hall PARAPLEX G-62 MSDS describes a light yellow viscous liquid.
Odour	Slight/low odour for Valtris Plas-Chek 775; mild, inoffensive odour for C.P. Hall PARAPLEX G-62.
Melting point / freezing point	0 °C in the public SDS for CAS 8013-07-8. Valtris separately reports a pour point of approximately -3.9 °C for Plas-Chek 775; pour point is not interchangeable with melting point.
Boiling point / boiling range	158 °C for Valtris Plas-Chek 775. The older C.P. Hall PARAPLEX G-62 MSDS reports >399 °C (>750 °F). These product-specific source values conflict and are retained separately.
Flammability	Combustible IIIB, estimated; not explosive and not oxidizing (Valtris Plas-Chek 775).
Explosion / flammability limits	No data available
Flash point	315 °C for Valtris Plas-Chek 775. The C.P. Hall PARAPLEX G-62 MSDS reports 310 °C (590 °F), Cleveland open cup.
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity	Gardner viscosity N for Valtris Plas-Chek 775; this is a Gardner-scale value, not a numerical dynamic or kinematic viscosity.
Solubility	Insoluble in water (public SDS for CAS 8013-07-8).
Partition coefficient n-octanol/water	No data available
Vapour pressure	8.4 × 10^-8 Pa at 25 °C (Valtris Plas-Chek 775).
Density and/or relative density	Specific gravity 0.992 for Valtris Plas-Chek 775; the public SDS lists 0.997 g/mL as a literature value.
Relative vapour density	No data available
Particle characteristics	Not applicable (liquid).
Appearance	Light yellow oily liquid
Density at 20 °c	0.988–0.998 g/cm³
Water solubility	Insoluble (public SDS)
Density, literature value in public sds	0.997 g/mL
Melting/freezing point in public sds	0 °C
Epoxy value	≥6.6% (ASTM D1652-04)

SECTION 9: Physical and chemical properties	
Acid value	≤0.5 mg KOH/g
Iodine value	≤5.0%

SECTION 10: Stability and reactivity	
Reactivity	Reactive with oxidizing agents (Ferro Plas-Chek 775 SDS).
Chemical stability	Store cool and dry and keep away from incompatible substances. Public substance information indicates that epoxidized vegetable oils can react with acids, bases, oxidizing agents and reducing agents and may polymerize in the presence of catalysts or when heated.
Possibility of hazardous reactions	Hazardous polymerization will not occur (Ferro Plas-Chek 775 SDS).
Conditions to avoid	C.P. Hall notes that PARAPLEX G-62 freezes below 5 °C (41 °F); this is a handling and physical-state consideration, not a stated decomposition threshold.
Incompatible materials	Oxidizing agents (Ferro Plas-Chek 775); strong alkalies, amines and acids (C.P. Hall PARAPLEX G-62).
Hazardous decomposition products	Oxides of carbon (C.P. Hall PARAPLEX G-62 MSDS).

SECTION 11: Toxicological information	
Toxicological summary	The selected public SDS does not classify ESBO for health hazards, and the manufacturer describes the product as non-toxic. No numerical acute-toxicity endpoint is added; avoid unnecessary exposure and use normal industrial hygiene.

SECTION 12: Ecological information	
Environmental fate	The selected public SDS does not assign an environmental hazard classification. ESBO is insoluble in water; contain spills and avoid drains or environmental release. No quantitative aquatic-toxicity endpoint is claimed for this grade.

SECTION 13: Disposal considerations	
Product disposal methods	Use a licensed chemical destruction facility or controlled incineration with flue-gas scrubbing where permitted. Do not discharge to sewer systems or contaminate water, food or feed. Rinse containers for authorized recycling/reconditioning or dispose of them 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

SECTION 14: Transport information

Special precautions for user	Not dangerous goods (ADR/RID, IMDG and IATA, public SDS); Not applicable; No ADR/RID, IMDG or IATA environmental transport hazard reported in the public SDS; The public SDS marks ADR/RID, IMDG and IATA as not dangerous goods, with a request to check current shipment requirements. Prevent leaks and protect containers during transport.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	EC 232-391-0. The public SDS lists ESBO in EINECS/EC Inventory, TSCA and China IECSC and does not list it in the China Catalog of Hazardous Chemicals 2015. Food-contact, medical or toy applications require separate grade-specific regulatory documentation and are not conferred by this general industrial specification.

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: Green plasticizers for PVC — Epoxidized Soybean Oil technical parameters and packaging: https://www.jiaaoplasticizers.com/epoxidized-soybean-oil-plasticizer | Epoxidized soybean oil Safety Data Sheet, CAS 8013-07-8: https://www.echemi.com/sds/epoxidized-soya-bean-oil-pd20150901133.html | Epoxidized soybean oil supplier identity, EC number and HS code: https://www.echemi.com/produce/pr2411112226-epoxidized-soybean-oil.html | Plas-Chek 775 product information (independent manufacturer cross-reference): https://www.valtris.com/products/plas-chek-775/ | Plas-Chek 775 — Safety Data Sheet: https://device.report/m/9133fba6694bf45b80730fd23f29807c86d876e5e04c3585357843cf6b2bfd53_pdf | PARAPLEX G-62 — Material Safety Data Sheet BCKMW: https://msdsreport.com/msds/BCKMW/PARAPLEX%20G-62/
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.