



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name Epoxidized Soybean Oil
Revision date 05-19-2011
Version # 01
CAS # 8013-07-8
Product use Industrial use.
Manufacturer/Supplier Industrial Oils & Lubricants
9320 Excelsior Blvd.
Hopkins, Minnesota 55343
US
IOLCustomerService@cargill.com
General Information: 1-800-842-3631
Emergency Emergency Telephone: 1-800-424-9300

2. Hazards Identification

Physical state Liquid.
Appearance Colorless to slightly yellow, viscous liquid.
Emergency overview CAUTION!
Prolonged or repeated skin contact may cause drying, cracking, or irritation.
OSHA regulatory status This product is not hazardous according to OSHA 29CFR 1910.1200.
Potential health effects
Eyes Direct contact with eyes may cause temporary irritation.
Skin Prolonged or repeated contact may cause itching, redness, and rash in some individuals.
Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Ingestion No harmful effects expected in amounts likely to be ingested by accident.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Epoxidized soybean oil	8013-07-8	100

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention promptly if symptoms occur after washing.
Skin contact Wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.
Inhalation If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Ingestion First aid is normally not required. However, if greater than 1/2 liter (pint) ingested, seek medical attention.

5. Fire Fighting Measures

Flammable properties No unusual fire or explosion hazards noted.
Extinguishing media
Suitable extinguishing media Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).
Fire fighting equipment/instructions Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Hazardous combustion products Carbon oxides.

6. Accidental Release Measures

Personal precautions	Wear appropriate personal protective equipment (See Section 8).
Methods for cleaning up	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. Handling and Storage

Handling	Observe good industrial hygiene practices.
Storage	Keep container closed.

8. Exposure Controls / Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Engineering controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye / face protection	Wear safety glasses with side shields (or goggles).
Skin protection	Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Colorless to slightly yellow, viscous liquid.
Color	Colorless to slightly yellow
Odor	Faint.
Odor threshold	Not available.
Physical state	Liquid.
Form	Viscous liquid.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	Not available.
Flash point	554 °F (290 °C) Cleveland Open Cup
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	0.992
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Excessive heat.
Incompatible materials	Oxidizing agents. Strong bases.
Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Test Results
Epoxidized Soybean Oil (8013-07-8)	Acute Oral LD50 Rat: > 5000 mg/kg
Sensitization	No sensitizing effects known.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Mutagenicity	Ames test: Negative.

12. Ecological Information

Ecotoxicological data

Product	Test Results
Epoxidized Soybean Oil (8013-07-8)	EC50 Algae: 8 mg/l 72 hours LC50 Leuciscus idus: 900 g/ml 48 hours
Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	The product is readily biodegradable.
Bioaccumulation / Accumulation	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.
Partition coefficient (n-octanol/water)	Not available.
Mobility in environmental media	The product is insoluble in water and will sediment in water systems.

13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is not hazardous according to OSHA 29CFR 1910.1200.
TSCA Section 12(b) Export Notification(40 CFR 707, Subpt. D)	Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - No
 Delayed Hazard - No
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A)
 No

Section 311/312 (40 CFR 370)
 No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)
 Not controlled

WHMIS status
 Non-controlled

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations
 This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

Further information
 HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
 Health: 1
 Flammability: 1
 Physical hazard: 0

NFPA ratings
 Health: 1
 Flammability: 1
 Instability: 0

Disclaimer
 To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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 05-19-2011