

Epoxidized Soybean Oil (ESBO) TDS

Re-Plastic Global

TECHNICAL DATA SHEET (TDS)

Epoxidized Soybean Oil (ESBO)

CAS No.: 8013-07-8

1. Product Introduction

Epoxidized Soybean Oil (ESBO) is a bio-based, non-toxic, and environmentally friendly plasticizer and stabilizer widely used in PVC processing. It is produced from natural soybean oil through epoxidation, offering excellent heat stability, flexibility, and compatibility with PVC resins.

ESBO is widely used as a secondary plasticizer and heat stabilizer in flexible PVC applications, especially for food-contact and medical-grade materials.

ESBO plasticized PVC products are widely used in:

- Food packaging materials
 - Medical PVC products
 - Electric cables and wires
 - Artificial leather
 - Soft PVC films and sheets
 - Childcare products (non-toxic applications)
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2. Product Specification

Item	Index
Appearance	Light yellow transparent liquid
Epoxy Value	$\geq 6.0 \%$
Acid Value	$\leq 0.6 \text{ mgKOH/g}$
Iodine Value	$\leq 5.0 \text{ gI}_2/100\text{g}$
Color (Gardner)	≤ 3
Density (20°C), g/cm ³	0.985 – 0.999
Viscosity (25°C), mPa·s	300 – 450
Moisture, %	≤ 0.10
Heating Loss, %	≤ 0.30

3. Packaging

- 200 kg steel drum: 16 MTS / 20GP (without pallet)
- 1000 kg IBC drum: 20 MTS / 20GP
- Flexitank: 23 MTS / 20GP

4. Storage & Handling

Store in a cool, dry, and well-ventilated place.

Avoid direct sunlight, high temperature, and strong oxidizing agents.

The product is stable under normal storage conditions and is widely recognized as a safe and eco-friendly plasticizer.

5. Manufacturer / Supplier Information

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6. Disclaimer

The information provided in this Technical Data Sheet is based on our current knowledge and experience. It is intended to describe the product for general guidance only and does not constitute a guarantee of specific properties.