



Technical Data Sheet

ESBO

• Name: Epoxidized Soybean Oil

Molar weight: ab 1000 g/mol

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Properties	
Appearance	Pale yellow clear liquid
Epoxy value	> 6
Iodine value	< 3 (mg I ₂ /g)
Acid value	0.8 (mg NaOH/g)
Loss on drying at 150 °C for 2 hours	< 0.2
Vapor pressure at 25 °C	< 0.1 hPa
Flash point	231 °C
Viscosity	ab 350 cPs
Density at 20 °C	0.984 (g/cm³)

Description

Epoxidized Soybean Oil, or ESBO, represents a pale-yellow, transparent liquid derived from the epoxidation process applied to soybean oil. This substance demonstrates compatibility with a range of materials, including PVC, PVA, nitrocellulose, and chlorinated rubber. Remarkably, it is characterized by its non-toxic nature and environmentally friendly attributes.

Application

Epoxidized Soybean Oil is an excellent co-plasticizer and secondary heat and light stabilizer in the production of PVC and its copolymers. It is used as an acid scavenger in the production of flexible PVC. Epoxidized Soybean Oil can be used as a pigment dispersing agent, chemical intermediate, lubricant, and in functional fluids, coatings, and adhesives.

Storage and Handling

Product should be stored in a dry place away from direct sunlight in sealed, original packaging

Safety

Due to its non-corrosive properties, the spillage of ESBO on surfaces or human skin does not give rise to any particular issues. A standard washing procedure employing soap or detergent along with an ample amount of water is deemed sufficient for remediation.