

L-61049 ϵ -caprolactone

CAS#: 502-44-3

Description

L-61049 is a colorless oily liquid with a special aroma of ester. Its molecule contains a five-membered lactone ring and an alkyl side chain. Since the carbonyl and epoxy groups on the lactone ring fix the structure of the molecule, the ϵ -caprolactone molecule exhibits strong stability and inertness. At the same time, the presence of alkyl side chains makes ϵ -caprolactone have better solubility and compatibility in solvents. Since the molecule of 6-caprolactone contains a carbonyl group, it has certain reactivity and can undergo various chemical reactions such as esterification, addition, and nucleophilic substitution.

Technical Data

Appearance	Transparent liquid
Molecular Weight (g/mol)	114.14
Acid Value (mg KOH/g)	0.3 max
Color Number (APHA)	≤ 100
Viscosity (25°C, CPS)	15 - 25
Density	1.03g/mL at 25°C (lit.)
Boiling Point	96-97.5°C 10 mm Hg (lit.)
Flash Point	229°F
Water Solubility	> 1000 MG/L (20°C)
Refractive Index	n ₂₀ /D 1.463(lit.)
Storage Conditions	Store below +30°C

Product Features

Improve gloss and weather resistance
Impact resistance
Improve flexibility
High reactivity and good adhesion

Applications

It is widely used in the production of polyurethane, acrylic, polyester, epoxy resin and other synthetic rubbers, synthetic fibers and synthetic resins; it is also used in the manufacture of caprolactam, adipic acid, adhesives, coatings, epoxy resin diluents, etc. It is the main raw material for the production of polycaprolactone degradable plastics. Due to its excellent biodegradation and biocompatibility, polycaprolactone degradable plastic has broad market prospects in the fields of biodegradable materials, medical devices, drug carriers and 3D printing.

Storage Conditions

To prevent premature polymerization due to the high reactivity of this product, keep it tightly sealed and store away from heat sources and direct sunlight. It is recommended to maintain storage temperature below 30 °C. Unused product should be promptly resealed and must not be left open. Under ventilated conditions at 25 °C, the product has a safe storage period of 6 months. Available packaging: 25 kg / 200 kg per drum

Tips: L-61049 has low viscosity, high reactivity, good dilution and flexibility.