Technical Data Sheet

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Silfluo LS-GLYDME

Epoxy Mono-Alkoxy Silane (Surface Modifier & Capping Agent)

Description:

Silfluo LS-GLYDME is an epoxy-functional mono-alkoxy silane chemically identified as 3-(Glycidyloxy)propyldimethylethoxysilane.

The molecule contains one glycidyloxypropyl group, one ethoxy group and two methyl groups attached to silicon. The epoxy group provides organic reactivity toward amine-, hydroxyl-, carboxyl- and epoxy-compatible systems. The ethoxy group can hydrolyze and react with hydroxylated inorganic surfaces. Compared with trialkoxy epoxy silanes, LS-GLYDME has lower alkoxy functionality. It is used where epoxy functionality is required with limited silane crosslinking contribution.

LS-GLYDME is used for surface silanization, filler treatment, epoxy-compatible surface modification, and preparation of functional inorganic surfaces.

Typical Physical Properties

Silfluo Code:	LS-GLYDME
Chemical Name:	3-(Glycidyloxy)propyldimethylethoxysilane
Synonyms	Ethoxy-Dimethyl-[3-(2-Oxiranylmethoxy)Propyl]Silane;
CAS No. :	17963-04-1
EINECS No. :	241-889-7
Molecular Formula:	$C_{10}H_{22}O_3Si$
Molecular Weight:	218.37
Appearance:	Colorless transparent liquid
Purity (by GC, %)	97 min
Density (25°C, g/cm³)	0.940~0.960
Refractive Index (n25.D)	1.4300 ~ 1.4400
Boiling Point:	247.7°C
Flash Point:	81.5°C Closed Cup
Chemical Structure:	

Applications:

1. Surface silanization

Used for silanization of hydroxylated inorganic surfaces, including glass, silica, silicon wafers and metal oxide surfaces.

2. Optical and sensor substrates

Used for functionalization of glass substrates, hydroxylated Si wafers and optical chips where epoxy-reactive surface groups are required. Public product data for this compound lists use on glass substrates, hydroxylated Si(100) wafers and optical chips.

3. Chromatography bonded phases

Used as a silane reagent for preparing bonded phases in chromatography applications, including supercritical fluid chromatography research.

4. Filler and particle treatment

Used for treatment of silica, alumina, glass and selected mineral fillers in epoxy-compatible resin systems.

5. Epoxy resin modification

Used as a reactive silane additive where epoxy functionality and mono-alkoxy silane functionality are required.

6. Adhesives, sealants and coatings

Used in selected adhesive, sealant and coating systems to introduce epoxy-functional silane reactivity and inorganic surface interaction.

Packing

In 200kg drum and 1000kg IBC.

Safety and Storage

Keep in a cool, dry, and well-ventilated environment, avoiding direct sunlight, heat, and open flames. The shelf life is a minimum of 12 months from the date of manufacture when stored at or below 25° C in tightly sealed, original unopened containers.