Technical Data Sheet

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Silfluo LS-E517

Fluoroalkyl Functional Silane

Description

Silfluo LS-E517 is 1H,1H,2H,2H-Perfluorodecyltriethoxysilane, a long-chain fluoroalkyl-functional triethoxysilane.

The molecule contains a C8F17 perfluorinated segment and three hydrolyzable ethoxy groups on silicon.

The triethoxysilyl group hydrolyzes and condenses with hydroxylated inorganic surfaces including glass, ceramics, silica, and metal oxides.

Compared with methoxy-functional analogs, the ethoxy groups release ethanol rather than methanol during hydrolysis.

The fluoroalkyl chain reduces surface energy and contributes to water- and oil-repellent character in selected coating systems.

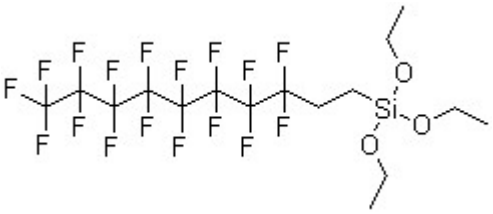
Used in anti-fingerprint, easy-to-clean, anti-smudge, and low-surface-energy coating formulations.

Performance equivalent to Shin-Etsu KBE-7803.

Typical Physical Properties

Silfluo Code:	LS-E517
Chemical Name:	1H,1H,2H,2H-Perfluorodecyltriethoxysilane
Synonyms	(Heptadecafluoro-1,1,2,2-tetrahydrodecyl)triethoxysilane
CAS No. :	101947-16-4
EINECS No. :	435-230-4
Appearance:	Colorless transparent liquid
Purity (by GC, %)	98.0 min
Density (20°C, g/cm3)	1.384±0.005
Refractive Index (nD 25°C):	1.340±0.005

Chemical Structure:



Applications

1. Anti-fingerprint and easy-to-clean coatings

Used in AF and ETC coating formulations for display glass, touch screens, optical glass, and ceramic surfaces.

2. Optical lens and display surface treatment
Used in surface treatment formulations for optical lenses, camera optics, AR-coated glass, and protective glass.
3. Automotive and architectural glass treatment
Used in surface treatment formulations for automotive windshields, architectural glass, and solar panel glass.
4. Textile and fiber finishing
Used as reactive component in selected DWR finishing formulations for technical textiles and nonwovens.
5. Metal surface treatment
Used in surface treatment formulations for aluminum, copper, and stainless steel surfaces.
6. Ceramic and sanitary surface modification
Used for low-surface-energy treatment of sanitary ceramics, shower glass, and silica-based surfaces.

Packaging

In 1kg fluorinated bottle, 25kg pail, 200kg drum.

Safety and Storage

Store in a cool, dry, well-ventilated area away from open flames, heat sources, and moisture. Keep containers tightly sealed.
Shipped as non-hazardous substance; refer to SDS before handling, storage, transport, and use.
Shelf life: 9 months from manufacture date in original unopened containers under recommended storage conditions.