



Silfluo LS-E11

Phenyl Functional Organosilane

Description

Silfluo LS-E11 is Phenyltriethoxysilane, a trifunctional phenyl-functional triethoxysilane.

The molecule contains one phenyl group and three hydrolyzable ethoxy groups on silicon.

The triethoxysilyl group hydrolyzes and condenses with hydroxylated inorganic surfaces or participates in sol-gel network formation; hydrolysis releases ethanol rather than methanol.

The phenyl group raises thermal stability, refractive index, and UV resistance of derived siloxane networks relative to alkyl-functional analogs.

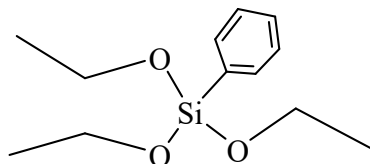
Used in sol-gel coating formulations, inorganic filler surface modification, high-temperature composite coupling, and phenyl silicone resin synthesis.

Performance equivalent to Dow Z-9805, Evonik Dynasylan 9265, Wacker Silan P Triethoxy, and Shin-Etsu KBE-103.

Typical Physical Properties

Silfluo Code:	LS-E11
Chemical Name:	Phenyltriethoxysilane
Synonyms	Triethoxyphenylsilane
CAS No. :	780-69-8
EINECS No. :	212-305-8
Molecular Weight:	240.37
Appearance:	Colorless transparent liquid
Purity (by GC, %):	98.0 min
Density ($\rho_{20^{\circ}\text{C}}$, g/cm ³)	0.991~1.001
Refractive Index (n _{25.D})	1.4668 ~1.4768
Boiling Point:	112-113 °C (10 mmHg)
Flash Point:	42 °C Closed Cup
Water Solubility:	Insoluble

Chemical Structure:



Applications

1. Sol-gel coating formulations

Used as trifunctional building block in sol-gel systems for protective coatings on metals and glass.

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Technical Data Sheet



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2. Inorganic filler and pigment surface modification

Used to modify surface of mineral fillers including wollastonite, ATH, and titanium dioxide for polymer composite applications.

3. High-temperature engineering plastics and composites

Used as coupling agent in thermoplastic and thermoset systems processed at elevated temperatures.

4. Phenyl silicone resin and fluid synthesis

Used as precursor in phenyl silicone fluid, siloxane copolymer, and high-RI optical resin synthesis.

Packaging

In 25kg pail, 200kg drum and 1000kg IBC

Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is min. 12 months.