



Silfluo LS-M512

Fluoroalkyl Functional Organosilane

Description:

Silfluo LS-M512 is Dodecafluoroheptylpropyltrimethoxysilane, a fluoroalkyl-functional trimethoxysilane. The molecule contains a dodecafluoroheptyl carbon chain and three hydrolyzable methoxy groups on silicon.

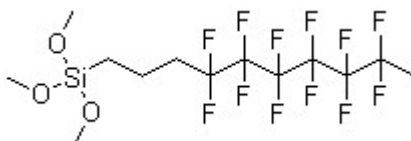
The trimethoxysilyl group hydrolyzes and condenses with hydroxylated inorganic surfaces including glass, ceramics, silica, metal oxides, mineral substrates, and treated metal surfaces.

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

Used as surface modifier or formulation component in mold release, easy-to-clean coating, mineral surface treatment, and textile, leather, or paper finishing formulations.

Typical Technical Properties

Silfluo Code:	LS-M512
Chemical Name:	Dodecafluoroheptylpropyltrimethoxysilane
Synonyms:	
CAS No. :	1105578-57-1
EINECS No. :	
Molecular Formula:	C ₁₃ H ₁₈ F ₁₂ O ₃ Si
Molecular Weight:	478.35
Appearance:	Colorless or pale yellow clear liquid
Purity (by GC, %):	95.0 min
Density (20°C, g/cm ³):	1.3±0.1
Refractive Index (nD 25°C):	
Boiling Point:	271 °C
Flash Point:	118°C
Chemical Structure:	



Applications:

1. Mold release formulations

Used in mold release formulations for rubber, polyurethane, and plastic molding processes.

2. Easy-to-clean glass and ceramic treatment

Used in surface treatment formulations for automotive glass, architectural glass, shower glass, sanitary ceramics, and silica-based surfaces.

Technical Data Sheet



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3. Mineral surface treatment

Used in mineral surface treatment systems for concrete, natural stone, and architectural substrates.

4. Textile, leather, and paper finishing

Used as reactive component in finishing formulations for textiles, leather, and paper.

5. Low-surface-energy coating research

Used in coating systems requiring water repellency, oil repellency, or release behavior.

Packing

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

Safety and Storage

Store in a cool, dry, well-ventilated area. Keep away from direct sunlight, heat, sparks, and open flames.

Keep containers tightly sealed after use; avoid moisture exposure during handling and transfer. Use dry equipment.

Hydrolysis releases methanol; assess VOC, flammability, and workplace exposure per formulation, process, and local regulations.

Shipped as non-hazardous substance per applicable transport regulations.

Shelf life: 12 months from manufacture date in original unopened containers under recommended storage conditions.