



Silfluo LS-532

Fluoro Functional Organosilane

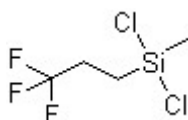
Description

Silfluo LS-532 is a highly pure, bifunctional fluorosilane intermediate, chemically identified as (3,3,3-Trifluoropropyl)dichloromethylsilane. Featuring both a reactive dichlorosilane functionality and a highly stable trifluoropropyl group, it serves as a critical, fundamental building block in the synthesis of advanced fluorosilicone polymers. This specific molecular architecture is engineered to seamlessly combine the exceptional low-temperature flexibility of silicones with the outstanding solvent and chemical resistance characteristic of fluorocarbons.

Typical Physical Properties

Silfluo Code:	LS-532
Chemical Name:	(3,3,3-Trifluoropropyl)dichloromethylsilane
Synonyms	
CAS No. :	675-62-7
EINECS No. :	211-623-4
Molecular Weight:	211.09
Appearance:	Colorless transparent liquid
Purity (by GC, %)	97.0 min
Density ($\rho_{20^{\circ}\text{C}}$, g/cm ³)	1.28
Refractive Index (n _{25/D})	N/A
Boiling Point:	123°C
Flash Point:	15 °C Closed Cup

Chemical Structure:



Features

1. Highly reactive dichloro functionality, enabling efficient hydrolysis and precise polymerization processes in downstream chemical manufacturing.
2. Incorporates a trifluoropropyl substituent that fundamentally imparts excellent resistance to non-polar solvents, automotive fuels, and aerospace fluids in cured elastomer systems.
3. Exceptional purity ($\geq 99\%$) ensures maximum yield and minimal byproduct formation during the complex synthesis of cyclic trimers.
4. Acts as a vital chemical bridge, merging the extreme thermal stability of polysiloxanes with the severe-environment durability of fluoropolymers.

Technical Data Sheet



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Applications

1. Fluorosilicone Trimer (D3F) Production: Serves as the primary, high-purity precursor for the synthesis of D3F (1,3,5-tris(3,3,3-trifluoropropyl)-1,3,5-trimethylcyclotrisiloxane), the essential cyclic monomer for advanced fluorosilicone polymerization.
2. High-Performance Fluorosilicone Rubber (FVMQ): Acts as the foundational building block for manufacturing high-consistency rubbers (HCR) and liquid silicone rubbers (LSR) deployed in aerospace O-rings, automotive turbocharger hoses, and harsh chemical containment seals requiring extreme fluid and heat resistance.
3. Specialty Fluorosilicone Fluids: Utilized in the synthesis of heavy-duty lubricating oils, functional greases, and highly stable damping fluids designed to operate reliably under severe friction, high loads, and chemically aggressive environments.
4. Advanced Fluorinated Polymers & Resins: Functions as a reactive intermediate for synthesizing customized fluorinated organosilicon copolymers, highly specialized chemical defoamers, and advanced low-surface-energy industrial coatings.

Packaging

In 500g, 1000g, 25kg pail, 200kg drum.

Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is min. 9 months. It is shipped as hazardous substance.