



Silfluo LS-622

1,3-Divinyltetramethyldisiloxane

Description

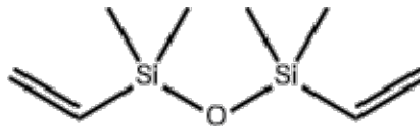
Silfluo LS-622 is a high-purity, linear divinyl-functional disiloxane. Due to its short chain length and the presence of highly reactive vinyl groups at both terminal ends, it serves as an exceptionally versatile chemical intermediate and a highly efficient linear inhibitor for platinum-catalyzed addition-curing silicone systems.

Beyond its role in modifying polymer network structures, it is globally recognized as the primary precursor for the synthesis of Karstedt's Catalyst (platinum-divinyltetramethyldisiloxane complex), making it an indispensable raw material in the advanced silicone industry.

Typical Physical Properties

Silfluo Code:	LS-622
Chemical Name:	Divinyltetramethyldisiloxane
Synonyms	Tetramethyl divinyl disiloxane; Vi2MM
CAS No. :	2627-95-4
EINECS No. :	220-099-6
Molecular Weight:	186.40
Appearance:	Colorless or light yellow transparent liquid
Purity (by GC, %)	95.0 min
The Vinyl Content:	≥ 30%
Density ($\rho_{20^{\circ}\text{C}}$, g/cm ³)	0.818
Refractive Index ($n_{25/\text{D}}$)	1.411-1.413
Boiling Point:	139°C
Flash Point:	24 °C Closed Cup
Water Solubility:	Insoluble

Chemical Structure:



Features

1. Highly Efficient Pot-Life Control: Acts as a premium linear inhibitor that effectively retards the room-temperature curing of two-part addition systems without permanently poisoning the platinum catalyst.
2. Controlled Volatility: With a boiling point of 139°C, it reliably volatilizes during the elevated-temperature curing phase, ensuring no residual inhibitor compromises the physical properties of the final elastomer.



3. Dual Vinyl Reactivity: Provides two highly accessible, unhindered terminal vinyl groups for rapid addition (hydrosilylation) reactions.
4. Ultra-High Purity: The strictly controlled purity ($\geq 95.0\%$) ensures consistent, reproducible performance in highly sensitive catalytic syntheses.

Applications

1. Addition-Curing Silicone Inhibitor (RTV-2 / LSR)

Widely utilized as a highly effective linear inhibitor in the formulation of two-part Addition-Curing Silicone RTVs and Liquid Silicone Rubbers (LSR). Due to its substantial vinyl concentration, very small amounts can drastically extend the working time (pot life) at ambient temperatures.

(Suggested starting formulation: Add 0.25 to 0.50 parts by weight of Silfluo LS-622 per 100 parts of the base polymer containing the platinum catalyst.)

2. Synthesis of Platinum Catalysts

Serves as the critical fundamental ligand and intermediate for synthesizing high-performance platinum complexes, specifically Karstedt's Catalyst, which is the global standard catalyst for addition-curing silicones.

3. Silicone Rubber & Gel Compounding

Used as a reactive additive and chain modifier in the processing of specialty addition-type silicone rubbers, vinyl silicone oils, and ultra-soft silicone potting gels for electronic encapsulation.

Packaging

In 160kg plastic lining iron drum

Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is min. 12 months. It is shipped as hazardous substance.