Technical Data Sheet

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Silfluo LS-624

Tetramethyltetravinylcyclotetrasiloxane (V4)

Description

Silfluo LS-624 (V4) is 2,4,6,8-Tetravinyl-2,4,6,8-tetramethylcyclotetrasiloxane, a cyclic siloxane tetramer with four vinyl substituents.

The molecule contains four methylvinylsiloxy repeat units on a cyclotetrasiloxane ring, giving a high vinyl group density relative to linear vinyl-functional siloxanes.

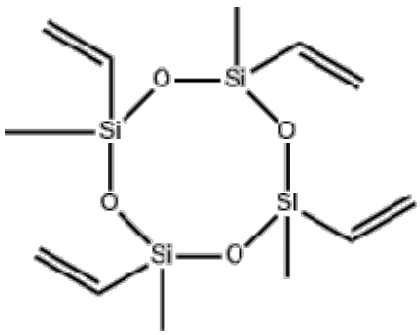
The cyclic ring structure and high vinyl content allow it to coordinate with platinum catalyst and function as a pot-life inhibitor in addition-cure systems; the inhibitor effect is temperature-dependent and reversible.

Used as inhibitor in addition-cure RTV-2 and LSR formulations, as reactive monomer for vinyl silicone oil and resin synthesis, and as crosslink density modifier in HTV.HCR rubber compounding.

Typical Physical Properties

Silfluo Code:	LS-624
Chemical Name:	2,4,6,8-Tetravinyl-2,4,6,8-tetramethylcyclotetrasiloxane
Synonyms	Tetramethyltetravinylcyclotetrasiloxane; V4
CAS No. :	2554-06-5
EINECS No. :	219-863-1
Molecular Weight:	344.66
Appearance:	Colorless transparent liquid
Purity (by GC, %):	98.0 min
Vinyl Content:	≥30%
Density (ρ25°C, g/cm³)	0.997
Refractive Index (n25.D)	1.4300~1.4400
Boiling Point:	224-224.5 ºC
Flash Point:	99 °C Closed Cup
Water Solubility:	Insoluble

Chemical Structure:



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Applications

1. Addition-cure inhibitor (RTV-2 . LSR)
Used as pot-life extender in two-part addition-cure silicone RTV and LSR formulations where low-volatility inhibitor is required.
2. HTV . HCR silicone rubber compounding
Used as reactive additive to increase vinyl group density and crosslink density in methyl vinyl silicone rubber compounds.
3. Vinyl silicone oil and resin synthesis
Used as reactive monomer for introducing distributed vinyl functionality into silicone oils, gums, and specialty resins.
4. Flame retardant polyolefin compounds
Used as synergistic additive in halogen-free flame-retardant polyolefin formulations.

Property	LS-622 (Vi_2MM)	LS-624 (V4)
Structure	Linear disiloxane	Cyclic tetrasiloxane
Vinyl groups per molecule	2	4
Boiling point	139°C	224–224.5°C
Flash point	24°C	99°C
Volatility during cure	Volatilizes during elevated-temperature cure	Low volatility; remains in network
Inhibitor character	Volatile inhibitor	Non-volatile inhibitor / reactive monomer
Primary use	Short pot-life control; Karstedt precursor	Extended pot-life; crosslink density modifier

Packaging

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

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.