Technical Data Sheet

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Silfluo LS-618

Octaphenylcyclotetrasiloxane (D4Ph . P4)

Description:

Silfluo LS-618 is Octaphenylcyclotetrasiloxane (D4Ph . P4), a cyclic siloxane tetramer with eight phenyl substituents.

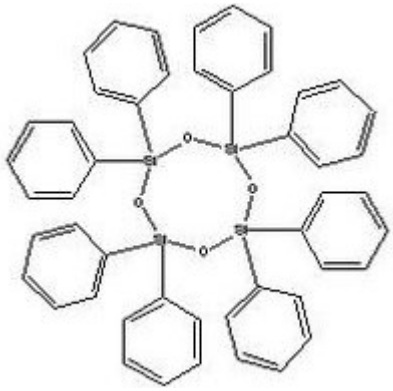
The molecule contains four Si－O repeat units forming a cyclotetrasiloxane ring, with two phenyl groups on each silicon atom.

The all-phenyl substitution pattern raises thermal stability, refractive index, and radiation resistance relative to dimethylsiloxane analogs.

Used as cyclic monomer for ring-opening polymerization of phenyl silicone fluids and rubbers (PVMQ), as flame-retardant synergist in engineering plastics, and as structural modifier in specialty polymer systems.

Typical Technical Properties

Silfluo Code:	LS-618
Chemical Name:	Octaphenylcyclotetrasiloxane
Synonyms:	Octadecylcyclosiloxane; D4Ph . P4
CAS No. :	546-56-5
EINECS No. :	208-904-9
Molecular Formula:	793.1708
Appearance:	Fine white powder
Melting Point:	190~200° C
Boiling Point:	334° C
Flash Point:	200° C
Solubility:	Insoluble in water, soluble in ordinary chemical solvents.
Chemical Structure:	



Applications:

1. Phenyl silicone fluid and rubber (PVMQ) synthesis

Used as primary cyclic monomer for ring-opening polymerization of phenyl silicone fluids and high-consistency phenyl silicone rubbers.

2. Halogen-free flame retardant (HFFR) synergist

Used as flame-retardant synergist in engineering plastics including polycarbonate and PC.ABS blends.

3. Specialty polymer modification

Used as structural modifier in polyurethane, epoxy resin, and polyolefin systems.

4. Pharmaceutical and fine chemical intermediates

Used as organosilicon precursor in macromolecular compound and API synthesis.

Package &Storage:

In 20kg plastic drum or other customized package.

Keep in cool, dry and ventilated place. Keep away from sunlight and fire sources. Keep in unopened containers. Storage beyond the shelf life does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.