# Technical Data Sheet

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# Siloxane LS-618

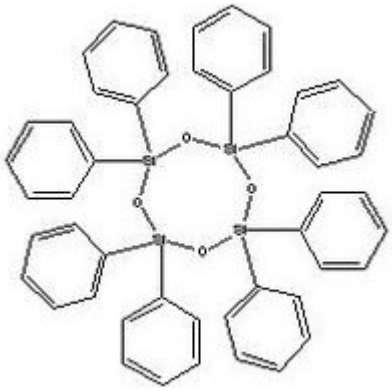
**Description:**

Chemical Name: Octaphenylcyclotetrasiloxane

Synonyms: Octadecylcyclosiloxane; DP4; Phenyl D4; Octadecyl cyclosiloxane

Equivalents:

Molecular Structure:



Molecular Weight: 793.1708

CAS NO.: 546-56-5

EINECS NO.: 208-904-9

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.

**Special Features:**

LS-618 Phenyl D4 is a solid with very high thermal stability. It has properties like high and low temperature, radiation resistance and aging resistance.

It is the primary precursor (intermediate) used to introduce diphenyl siloxane units into the polymer chain during the synthesis of high-performance silicone rubbers and resins.

**Applications:**

- Synthesis of Phenyl Silicone Rubber (PVMQ): It is used as a monomer in the ring-opening polymerization process to synthesize high-phenyl content silicone polymers. It imparts radiation resistance, high temperature stability, and high refractive index to the final rubber.
- Crosslinker & Additive: Acts as a crosslinking agent for silicone resins to improve thermal stability and mechanical strength.
- Flame Retardant: Used as a synergistic flame retardant additive in thermoplastic resins (like PC/ABS) due to its high thermal decomposition temperature.

**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.