Technical Data Sheet

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Silfluo LS-6345

Phenyl Siloxane

Description:

Silfluo LS-6345 is a mixed cyclic methylphenylsiloxane oligomer, comprising a blend of tricyclic (D3MePh), tetracyclic (D4MePh), and pentacyclic (D5MePh) forms.

Each ring unit contains alternating methyl and phenyl substituents on the Si–O backbone.

The methyl groups contribute low-temperature flexibility; the phenyl groups raise refractive index, thermal stability, and radiation resistance relative to dimethylcyclosiloxane analogs.

Used as monomer for ring-opening polymerization of phenyl silicone rubbers (PVMQ) and fluids, and as functional ingredient in personal care and optical resin formulations.

Typical Technical Properties

Silfluo Code:	LS-6345
Chemical Name: Synonyms:	Methylphenylcyclosiloxane (Mixture of D3MePh, D4MePh, D5MePh)
CAS No. :	546-45-2 (D3), 77-63-4 (D4), 34239-75-3 (D5)
Viscosity(mm^2/s):	50-300
Appearance:	Colorless, transparent, oily liquid or with white crystals
Purity (by GC, %):	98.0 min
Density (20°C, g/cm^3):	1.08
Refractive Index (nD 20°C):	1.54-1.55
Boiling Point:	160-260°C, 0.13kPa
Flash Point:	>200°C
Chemical Structure:	

Applications:

1. Phenyl silicone rubber (PVMQ) synthesis

Used as primary cyclic monomer for ring-opening polymerization of methylphenyl silicone elastomers for extreme-temperature applications.

2. Phenyl silicone fluids and resins

Used as building block for radiation-resistant damping fluids, high-temperature heat transfer oils, and high-RI optical encapsulant resins.

3. Personal care and cosmetics

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Used as sensory fluid and optical modifier in skincare, sunscreen, and color cosmetic formulations.

4. Medical and pharmaceutical polymers

Used in the synthesis of biocompatible silicone materials for medical tubing, wound care, and pharmaceutical applications.

Packing

In 1kg fluorinated bottle, 25kg pail and 200kg drum.

Safety and Storage

Keep in a cool, dry, and well-ventilated environment, strictly avoiding direct sunlight, heat, and ignition sources. The shelf life is 12 months from the date of manufacture when stored in original unopened containers. Classified as a non-hazardous substance for transport and handling. Storage beyond the shelf life does not necessarily mean the product is unusable; however, the properties required for the intended use must be thoroughly checked for quality assurance reasons prior to application.

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