



Silfluo LS-OP594

Tris-Siloxane Methacrylate

Description:

Silfluo LS-OP594 is a tris-siloxane methacrylate monomer, chemically identified as 3-[tris(trimethylsiloxy)silyl]propyl methacrylate.

The molecule contains a polymerizable methacryloxy group and a bulky tris(trimethylsiloxy)silyl group. The methacryloxy group participates in free-radical polymerization, including UV and thermal curing mechanisms.

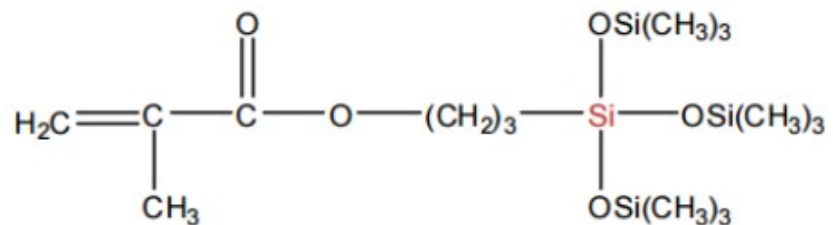
The tris-siloxane segment introduces silicone characteristics, such as increased free volume and reduced surface energy, into compatible polymer networks.

Commonly known as TRIS, it functions as a reactive comonomer in silicone hydrogels, UV-curable resins, and specialty coatings.

Typical Physical Properties

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| Silfluo Code: | LS-OP594 |
| Chemical Name: | 3-[Tris(trimethylsiloxy)silyl]propyl methacrylate |
| Synonyms | TRIS . 3-(Methacryloyloxy)propyltris(trimethylsiloxy)silane |
| CAS No. : | 17096-07-0 |
| EINECS No. : | 241-165-0 |
| Molecular Formula: | C ₁₆ H ₃₈ O ₅ Si ₄ |
| Molecular Weight: | 422.81 |
| Appearance: | Colorless transparent liquid |
| Purity (by GC, %): | 97 min |
| Density (25°C, g/cm ³): | 0.910 - 0.930 |
| Refractive Index (n _{25.D}): | 1.4150 - 1.4250 |
| Boiling Point: | 112°C |
| Flash Point: | 147°C Closed Cup |

Chemical Structure:



Applications:

1. Silicone hydrogels: Used as a reactive comonomer in the synthesis of silicone hydrogel materials to

Technical Data Sheet



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facilitate oxygen permeability.

2. UV-curable coatings and inks: Used as a reactive silicone monomer in radiation-curable systems to modify slip, leveling, and surface energy.
3. Marine fouling-release coatings: Used as a resin modifier to copolymerize and introduce hydrophobic silicone segments into the coating matrix.
4. Polymer surface modification: Used as a reactive additive to lower the surface energy and modify the phase behavior of organic polymer networks.

Packing

In 190kg drum and 950kg IBC.

Safety and Storage

Keep in a cool, dark, and well-ventilated environment. Avoid direct sunlight, heat sources, sparks, and strong oxidizing agents. The shelf life is a minimum of 6 to 12 months from the date of manufacture when stored at or below 25 ° C (refrigeration preferred for long-term optical-grade stability) in tightly sealed, original unopened containers.