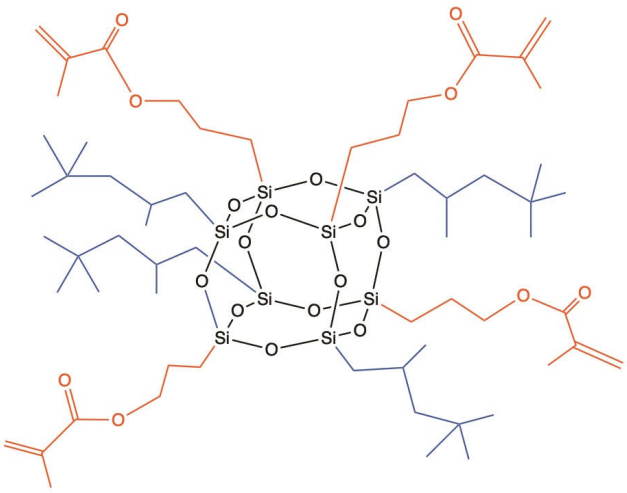
Product : HC0710.11

Methacryl i-Octyl POSS®



APPLICATIONS

Surface Energy Control and Interfacial Compatibilization. Additionally, Dispersion Enhancement and Hydrophobicity can be realized in certain formulations.

TYPICAL PROPERTIES

Appearance	Clear, Slightly Viscous
Viscosity @ 25˚C	3.5-4.5 Pa s
Refractive Index	1.4693@ 21°C
Formula Weight (octamer)	1378.22 g/mol
Equivalent Weight	344.5
Solvent Solubility Solvent Insolubility	Cyclohexane, Alcohols, Ketones Water

REGULATORY STATUS

R&D use only at this time.
Not a primary dermal irritant.

HANDLING PRECAUTIONS

Product safety information required for safe use is not included in this document. Before handling, read product and material safety data sheets and container labels for safe use, physical health and hazard information. For material safety data information, contact HYBRID.

BENEFITS

UV Free Radical and Addition Cure. The combination of reactivity provides for compatibilization, interfacial control, and dispersion. The crosslinking capability, in combination with i-Octyl provides for reduced surface energy and hydrophobicity.

DESCRIPTION

Methacryl i-Octyl POSS® is a hybrid molecule with an Inorganic silsesquioxane core and Organic reactive groups attached at the corners of the cage.

Methacryl i-Octyl POSS® is a molecular union of both functional chemistry and Organic-Inorganic compositions.

COMPATIBILITY

Methacryl i-Octyl POSS® is provided in NEAT form and can also be provided as a concentrate in solvents/ monomers and resins. Methacryl i-Octyl POSS® is intended to be utilized as an additive. At low additive concentrations, compatibility is expected with a wide range of resins and monomers bearing similar chemical functionality.

Compatibility testing is recommended for higher concentrations. Additional information and screening may be provided by HYBRID upon request.

ADDITIONAL DETAILS

Methacryl i-Octyl POSS® is a mixture of cages sizes 8, 10, and 12. The Organic groups are randomly distributed around each cage core.

The ratio of methacryl and i-octyl groups in the 1:3 product is approximately 2:6 for an octameric cage.

The distribution of cage size and functionality around the cage core is analogous to that for functional polymers.

Heteroleptic cage POSS are represented by the catalog designation HC. The structure shown is idealized and should not be considered exact.

hybrid

www.hybridplastics.com

55 W.L. RUNNELS INDUSTRIAL DR., HATTIESBURG, MS 39401 P: 601-544-3466 FAX: 601-545-3103