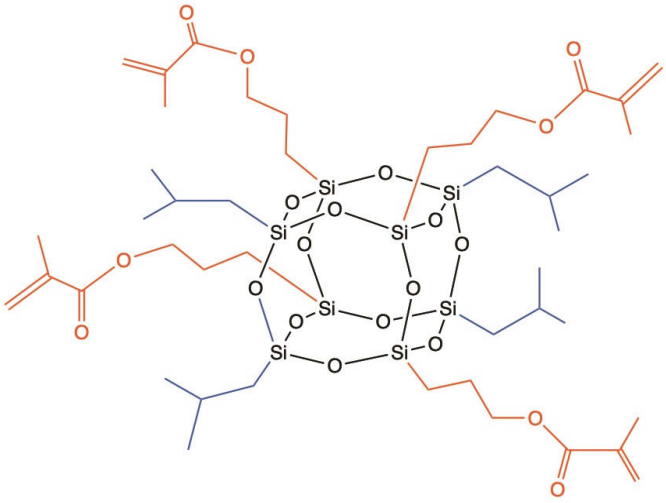
Product : HC0709.11

Methacryl i-Butyl POSS®



APPLICATIONS

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

TYPICAL PROPERTIES

Appearance	Clear, Slightly Viscous Liquid
Viscosity @ 25˚C	2.1-2.9 Pa s
Refractive Index	1.4675 @ 19.8 °C
Molecular Weight (octamer)	1153.79 g/mol
Equivalent Weight	288
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 useage, 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-Butyl provides for hydrophobicity and reduced surface energy.

DESCRIPTION

Methacryl i-Butyl POSS® is a hybrid molecule with an inorganic silsesquioxane core and organic reactive groups attached at the corners of the cage. Methacryl i-Butyl POSS® is a molecular union of both functional chemistry and organic-inorganic compositions.

COMPATIBILITY

Methacryl i-Butyl POSS® is provided in neat form and can also be provided as a concentrate in solvents/monomers and resins.

Methacryl i-Butyl 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-Butyl POSS® is provided as a mixture of cages sizes 8, 10, and 12. The organic groups are randomly distributed around each cage core. The ratio of Glycidyl and Methacryl groups is an approximate 1:1 molar ratio.

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

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

ADDITIONAL MOLAR RATIOS/ORGANIC CAGE GROUPS AVAILABLE UPON REQUEST.

hybrid

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