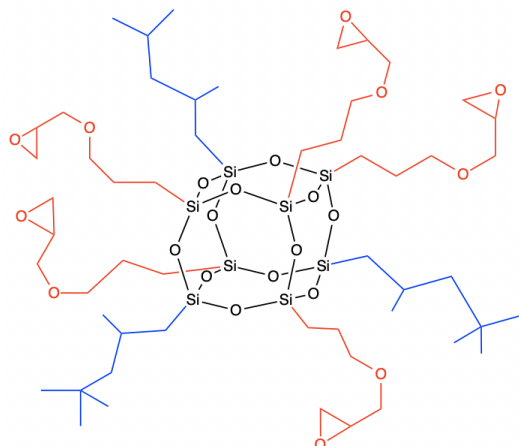


Product - HC0410.11

Glycidyl i-Octyl POSS[®]



APPLICATIONS

HC0410.11 has found a diversity of uses. It is generally utilized as an additive @ 0.5-3.0 wt% loading levels to impart adhesion and hydrophobicity in coatings. It is also used as a compatibilizer and carrier of ingredients in coatings and resins. HC0409.11 can also be surfaced glassified under oxygen plasma, corona, and UV to provide a tie-layer for coatings or to increase scratch and mar resistance.

TYPICAL PROPERTIES

Appearance	Clear, Slightly Viscous Liquid
Viscosity @ 25°C	4.2-5.2 Pa s
Refractive Index	1.4688 @ 21 °C
Formula Weight (octamer)	1330.17 g/mol
Equivalent Weight	332.5
Solubility	Most Epoxy, EpoxyAcrylic Resins

REGULATORY STATUS

R&D use 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 Cationic and Addition Cure. The combination of reactivity provides for compatibilization, interfacial control, and dispersion. The high crosslinking capability in combination with hydrophobicity provides for enhanced processing and hardness while retaining optical transmission.

DESCRIPTION

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

COMPATIBILITY

Glycidyl i-Octyl POSS is provided in NEAT form for ease of formulating. It 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

Glycidyl i-Octyl POSS is provided as a mixture of cages sizes 8, 10, and 12. The organic groups are randomly distributed around each cage core. The mole ration of Glycidyl and i-Octyl groups is 1:1 for HC0410.11. 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 AVAILABLE upon request at info@hybridplastics.com



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