

Vinyl iso-Octyl POSS®

FEATURES

Clear, colorless liquid oil.

APPLICATIONS

Adhesives Coatings, Dispersion and reactive rheological diluents. Ideal for coatings that can benefit from secondary reactivity imparted by the combination of methacrylate and glycidyl chemistry.

TYPICAL PROPERTIES

Appearance	Clear, colorless liquid oil
Viscosity (@25°C)	3.0-4.0 Pa s
Refractive Index	1.4687 @ 18.4 °C
Formula Weight	1361.91 for octamer
Solvent Solubility	THF, chloroform cyclohexane, acetone, ethanol
Solvent Insolubility	Water, methanol

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

Dual cure capability. UV cationic and free radical or thermal and addition cure. The combination of reactivity provides for compatibilization, interfacial control and dispersion. The high crosslinking capability along with rigid cage core provides hardness and scratch resistance while retaining high optical transmission.

DESCRIPTION

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

COMPATIBILITY

Solvents	
iPropanol (70%)	Soluble
PGMEA	Soluble
Aliphatic Resins	
Nearly all epoxy resins	Soluble
Nearly all acrylic resins	Soluble
Aromatic Resins	
Nearly all epoxy, urethane resins	Soluble
Nearly all acrylic resins	Soluble

ADDITIONAL DETAILS

Glycidyl Methacryl POSS® is provided as a mixture of cages sizes 8, 10, 12. The organic groups are randomly distributed around each cage core. The molar ratio of glycidyl and methacryl groups is 4:4 for HC0407.11

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

6:2 Gly:MA product number HC0407.31

2:6 Gly:MA product number HC0407.13

Custom requests are also welcome.

www.hybridplastics.com