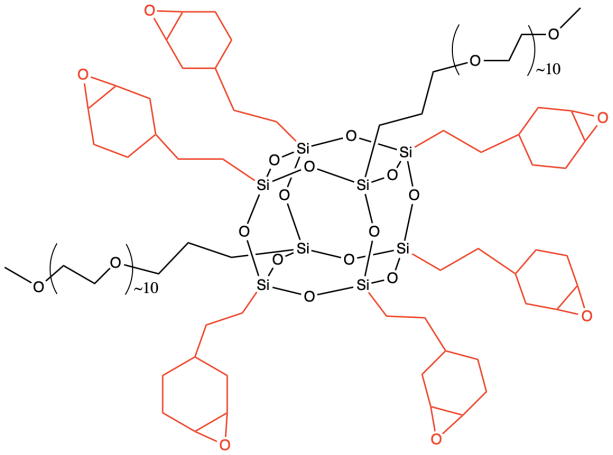
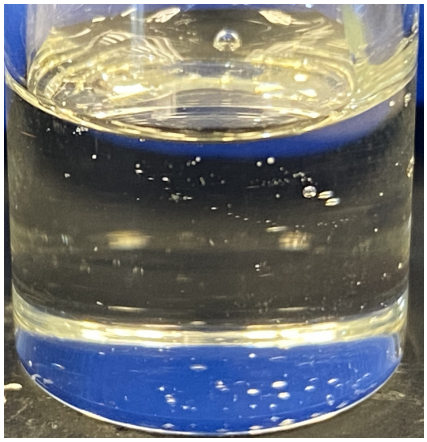
Product - HC 0313.31

Cyclohexylethylepoxy PEG POSS®

Clear, transparent liquid.





APPLICATIONS

Surface energy control, Hydrophilic wetting, leveling and crosslinking. Additionally dispersion and plasticization can be realized in certain formulations.

TYPICAL PROPERTIES

Appearance	Clear, light yellow liquid
Viscosity (@25˚C)	3.5-4.5 Pa s
Refractive Index	1.4833 @ 19.2 °C
Formula Weight	1954.88 for octamer
Solvent Solubility	clyclohexane, IPA, n-butylacetate, PGMEA
Solvent Insolubility	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 cationic and addition cure. The combination of reactivity and hydrophilicity provides for interfacial compatibility, adhesion, dispersion, and leveling. The high crosslinking capability in combination with PEG provides for high optical transmission.

DESCRIPTION

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

COMPATIBILITY

Cyclohexylethylepoxy PEG POSS is highly adhesive and only provided as a concentrate in solvents/monomers and resins.
Cyclohexylethylepoxy PEG 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

Cyclohexylethylepoxy PEG POSS® is a provided as a mixture of cages sizes 8, 10, 12. The organic groups are randomly distributed around each cage core. The molar ratio of Epoxy and PEG groups is 6:2 for HC0313.31

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

The structure shown is idealized and should not be considered exact.

ADDITIONAL MOLAR RATIOS AVAILABLE

7:1 Epoxy:PEG product number HC0313.71
5:3 Epoxy:PEG product number HC0313.53
2:6 Epoxy:PEG product number HC0313.13
Custom requests are also welcome.

www.hybridplastics.com

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