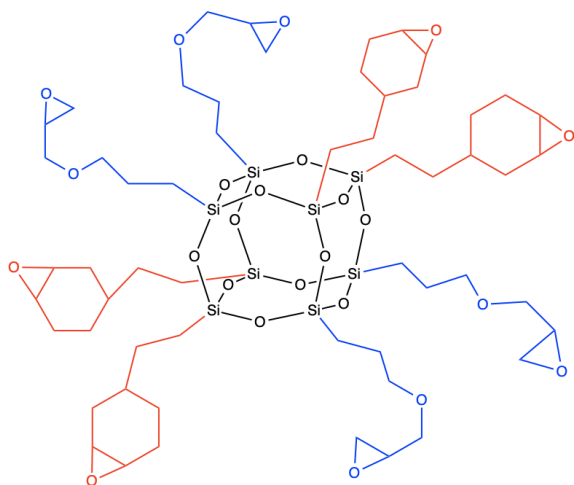


## Product - HC 0304.11

# Cyclohexylepoxy Glycidyl POSS®

Clear, light yellow liquid.



HC0304.11 has found a diversity of uses. It is generally utilized as an additive at 0.5-3 wt% loading levels to impart adhesion and durability in coatings. It is also used as a compatibilizer and carrier of ingredients in coatings and resins. It 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, light yellow liquid
HC0304.11 Viscosity (@55°C)	20-28 Pa s
Refractive Index	1.4961 @ 19.6 °C
Formula Weight	1378.04 for octamer
EEW	172
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.*

hybrid



### BENEFITS

UV free radical and addition cure. The combination of reactivity provides for compatibilization, interfacial control and dispersion. The high crosslinking capability in combination with adhesion provides for dual-cure processing and hardness while retaining optical transmission.

### DESCRIPTION

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

### COMPATIBILITY

Cyclohexylepoxy glycidyl 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

Cyclohexylepoxy glycidyl POSS® is provided as a mixture of cage sizes 8, 10, 12. The organic groups are randomly distributed around each cage core. The molar ratio of glycidyl and cyclohexylepoxy groups is 1:1 for HC0304.11

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**  
request at [info@hybridplastics.com](mailto:info@hybridplastics.com)

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