

# Product - HC1110.71

## Vinyl *i*-Octyl POSS<sup>®</sup>

### DESCRIPTION

Vinyl *i*-Octyl POSS<sup>®</sup> 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.



### APPLICATIONS

Adhesives, dispersion, and reactive crosslinking. Well suited for e-beam cure and crosslinking by peroxides and sulfur.

\*unique adhesive wetting to polyolefins\*

### TYPICAL PROPERTIES

Appearance	Clear, colorless liquid oil
Viscosity (@25°C)	Shear thinning
Refractive Index	1.4687 @ 18.4 °C
Formula Weight	719.21 for octamer
Solvent Solubility	THF, chloroform cyclohexane, acetone, ethanol
Solvent Insolubility	Water, methanol

### REGULATORY STATUS

CAS 2984538-14-7

Not a primary dermal irritant.

### HANDLING PRECAUTIONS

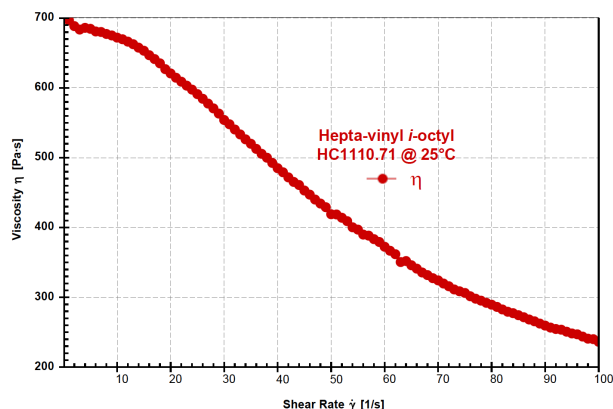
*Product safety information required for safe use is not included in this document. Before handling, read product and material safety data sheets and container labels for safe use, physical health and hazard information. For material safety data information, contact Hybrid.*



### BENEFITS

HC1110.71's high vinyl content, high viscosity, non-volatility, and natural adhesive characteristics are ideally suited for crosslinking and dispersion of particulates. The presence of *i*-Octyl groups afford flow characteristics and localized plasticization. In addition to optical transparency this additive may impart adhesive characteristics to polyolefins and related non-polar polymers for which it wets.

### RHEOLOGY



### ADDITIONAL DETAILS

Vinyl *i*-Octyl POSS<sup>®</sup> 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 vinyl and *i*-Octyl groups is 7:1 for HC1110.71

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

Custom requests are welcome at  
[info@hybridplastics.com](mailto:info@hybridplastics.com)



[www.hybridplastics.com](http://www.hybridplastics.com)