TriSilanolIsooctyl POSS®

SO1455

SO1455 is a hybrid molecule with an inorganic silsequioxane at the core, organic isooctyl groups attached at the corners of the cage and three active silanol functionalities. SO1455 can used for surface modification of fillers or other materials. It is also effective as an additive to thermoplastics and thermoset polymers for improving moisture resistance and processability. SO1455 has also shown effectiveness toward skin adhesion, wound closure and hemostasis.

 $C_{56}H_{122}O_{12}Si_7$

FW 1184.16

 $D_4^{20} 0.97$

 $n_{\rm D}^{20}$ 1.45

* Only available at 90-95% purity

Key Properties

Appearance: clear, pale yellow viscous liquid

Thermal Stability (5% wt loss): 363°C

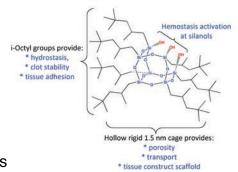
Solvent Solubility: THF, chloroform, acetone,

ethanol, hexane

Solvent Insolubility: acetonitrile

Resin Solubility: aliphatic and aromatic monomers,

oligomers, PP, PE, PA, cellulosics



Relevant Literature

- Reinforcement of PET Fibers High Performance Polymers, 17: 403-424, 2005
- Transparent Nanocomposites of POSS Proc. 227th ACS Meeting 2004
- Stone Conservation ACS Appl Mater Interfaces. 2009 Feb;1(2):393-401.

CAS 444619-08-3 Authorizations: TSCA

\$175/100g \$350/kg