

Aminopropyl *i*-octyl POSS[®]

APPEARANCE

Easily handled semisolid primary polyamine. Hazy to clear, colorless to pale yellow additive.

DESCRIPTION

HC0110.11 is a hybrid molecule with an inorganic silsesquioxane core and organic aminopropyl groups for reactivity and *i*-octyl groups for stability and compatibility.

APPLICATIONS

HC0110.11 is reactive with epoxy, isocyanate, anhydride chemistry. It provides enhanced hydrophobicity and a unique affinity for water-based dyes.

HC0110.11 is highly adhesive and stable under common use conditions. In certain applications, the *i*-octyl groups provide localized plasticization and wetting of non-polar surfaces.

As will all POSS additives incorporated into formulation, surface glassification, such as plasma etching, allows for MAR resistance and use as a bondable tie layer.

CHARACTERISTICS

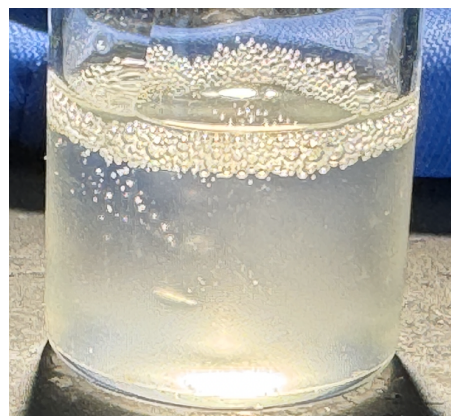
Appearance	Hazy to clear, colorless to pale yellow
Viscosity @25°C	125 Pa-s
Refractive Index	1.471 @ 20.4 °C
Formula Weight	1101.98
AEW	275.49 g/eq
Insoluble	water
Solvent Solubility	THF, ketones, alcohols, hexanes
Resin Solubility	miscible in Epoxy, Urethane, Acrylic, Aromatic

REGULATORY STATUS

Pending. R&D use only at this time.

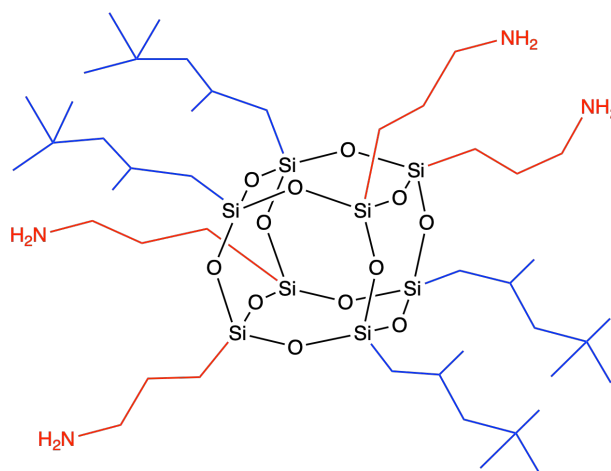
HANDLING PRECAUTIONS

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



PRODUCT BENEFITS

Provides high temperature stability and robust resistance to environmental degradation such as moisture or oxidation and UV C/B absorption.



STRUCTURE AND FUNCTION

Compositionally, HC0110.11 POSS is a mixture of cages having 8, 10, and 12 silicon atoms, along with cage-like oligomers. The stoichiometry is statistically random. This is analogous to copolymers. In the case of POSS additives it improves their miscibility and minimizes aggregation.

ADDITIONAL INFORMATION

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
upon request at info@hybridplastics.com



www.hybridplastics.com