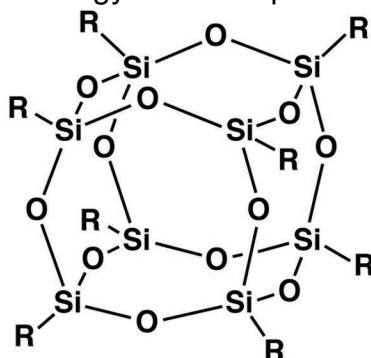


# Octaisobutyl POSS<sup>®</sup>

MS0825

MS0825 is a hybrid molecule with an inorganic silsequioxane at the core and organic isobutyl groups attached at the corners of the cage. MS0825 can be used as a processing aid in plastics to improve flow. It has also been used to improve printability and modify surface energy of thermoplastics.



R = *i*-butyl

$C_{32}H_{72}O_{12}Si_8$

FW 873.60

$D_4^{20}$  1.13

$n_D^{20}$  1.47

## Key Properties

**Appearance:** white powder

**Bulk Density:** 0.63 g/mL

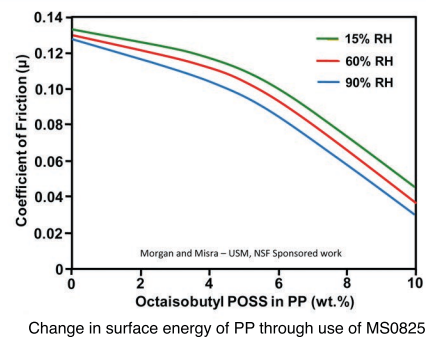
**Surface Free Energy:** 17.1 mJ/m<sup>2</sup>

**Thermal Stability (5% wt loss):** 216°C

**Solvent Solubility:** THF, chloroform, hexane

**Solvent Insolubility:** acetone, acetonitrile, methanol

**Resin Solubility:** most thermoplastic resins



## Relevant Literature

- Polypropylene-POSS Nanocomposites - *Macromol. Symp.* 2006, 234, 59–67
- Modification of PP surface energies with POSS - *Journal of Polymer Science: Part B: Polymer Physics*, Vol. 45, 2441–2455 (2007)
- Polymer-Based Sausage Casing - *US Patent 7,833,594*
- Controlled Alignment of Nano-Barcodes - *US Patent 7,705,222*

CAS 221326-46-1 Authorizations: TSCA, INCI

\$60/100g \$195/kg