MANTA

Technical Data Sheet

Version: 1.0

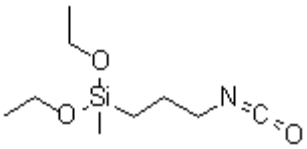
Manta S122

Isocyanate Functional Dialkoxy Silane

Description

Manta S122 is an isocyanate-functional silane, featuring a highly reactive isocyanate group and a methyldiethoxy silyl group. This molecular architecture combines two formulation benefits:
It undergoes hydrolysis to release safe, non-toxic ethanol (unlike methoxy variants), ensuring strict environmental compliance.
Its dialkoxy structure acts as a linear chain extender, significantly reducing crosslink density to produce ultra-flexible, low-modulus elastomers.
It is a suitable end-capping agent for formulators demanding both extreme elongation capabilities and eco-friendly profiles.
Performance equivalent to Shin-Etsu KBE-9207.

Typical Physical Properties

Manta Code:	S122
Chemical Name:	(3-Isocyanatopropyl)methyldiethoxysilane
Synonyms:	(gamma-Isocyanatopropyl)methyldiethoxysilane;
CAS No. :	33491-28-0
Molecular Weight:	217.34
Appearance:	Straw liquid
Purity (by GC, %):	96.0 min
Density (ρ20°C, g/cm³):	0.94±0.1
Refractive Index (n25/D):	Approx. 1.4200
Boiling Point:	235.0°C
Flash Point:	96°C Closed Cup
Chemical Structure:	

Properties

1. Eco-Friendly Byproduct: Releases non-toxic ethanol upon moisture curing, bypassing stringent restrictions on methanol-releasing chemicals.
2. Ultra-High Flexibility: The presence of the methyl group limits 3D crosslinking, acting as a superior chain extender to yield low-modulus, high-movement sealants and coatings.
3. Rapid Reactivity: The active isocyanate group bonds instantly with active hydrogen species (amines, hydroxyls, polyols).
4. Adhesion Promotion: Enhances wet and dry adhesion of polymer systems to challenging inorganic substrates without sacrificing coating flexibility.

Applications

Manta S122 is a raw material for polymer synthesis:
1. Polymer End-Capping: Used for end-capping polyols in the synthesis of Silane-Modified Polymers (SMP / MS Polymer) and SPUR systems destined for the European and North American green-building markets.
2. High-Movement Joint Sealants: Critical for formulating expansion joint sealants that require massive thermal expansion/contraction capabilities without cohesive failure.

3. Eco-Friendly Adhesives & Coatings: Used as an additive or modifier in polyurethane systems where safety, low VOCs, and high flexibility are mandatory.

Packaging

In 20KG, 25kg iron pail, 200KG drum

Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is min. 12 months. It is shipped as hazardous substance.

Contact Information

Nanjing Manta New Material Co., Ltd
Add: Room 102-247, Building 17, No. 1 Qiliqiao North Road, Nanjing Area of the China (Jiangsu) Pilot Free Trade Zone, Nanjing, China
Factory: Miaoguan Town Industrial Park, Sishui County, Jining City, Shandong Province, China
Mob: +86 18961071292
Mail: inquiry@mantasil.com Web: www.mantasil.com