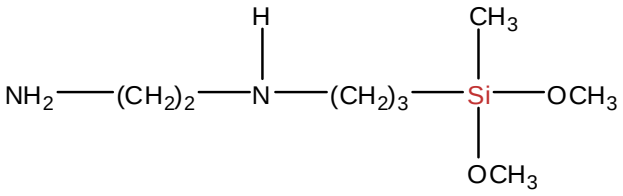
SiSiB® PC1220 SILANE

Chemical Name

N-beta-(aminoethyl)-gamma-aminopropyl-methyldimethoxysilane

Chemical Structure



Introduction

SiSiB® PC1220 is a colorless, strongly alkaline liquid with amine smell being very sensitive to hydrolysis.

SiSiB® PC1220 is a diamino-functional silane capable of providing good adhesion and superior elougation and flexibility at the polymer-substrate interface. It is used to promote adhesion between glass, mineral and metal surfaces - reinforcements, fillers and substrates - and resins that react with amino groups in systems such as PVC plastisol, polyurethane, or epoxy-based adhesives and sealant, or in phenolic and epoxy molding compounds. Its reduced alkoxy functionality might also be useful in waterborne systems such as latex coatings, adhesives and sealants, providing lower reactivity and therefore higher stability in the aqueous environment.

Typical Physical Properties

CAS No.	3069-29-2
EINECS No.	221-336-6
Formula	$C_8H_{22}N_2O_2Si$
Molecular Weight	206.4
Boiling Point	265°C [760mmHg]
Flash Point	93°C
Ignition temperature	290°C
Color and Appearance	Colorless transparent liquid

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Density $_{25/25°C}$	0.970-0.980
Refractive Index	1.445 [25°C]
Purity:	Min.99.0%

Solubility: SiSiB® PC1220 is easily soluble in water with spontaneous hydrolysis occurring.

Caution: Due to solution enthalpies mixing water is exothermic. Always stir SiSiB® PC1220 into water. With alcohols miscibility is, in general, possible with self-catalyzed exchange of the alkoxy-groups. In aliphatic and aromatic hydrocarbons and (moisture-free!) ethers or esters SiSiB® PC1220 is easily soluble at differing levels. With ketones and various halogenated compounds a slow reaction can occur. Towards acids, epoxides or isocyanates SiSiB® PC1220 shows typical amine function. Some nonferrous metals can discolor upon contact.

Applications

SiSiB® PC1220 can be used as adhesion promoters in polysulfide, polyvinyl chloride plastisol, silicone two-part urethanes and epoxy adhesives and sealants.

SiSiB® PC1220 can be used as additives for cold-curing phenolic and furan foundry resins to improve the flexural strength of the sand-resin composites while

SiSiB® PC1220 can be used to maintain the shelf life of the resin over long periods.

SiSiB® PC1220 can be used as starting material in the synthesis of amino-functional silicones.

SiSiB® PC1220 can be used as additives to latex coatings, adhesives and sealants.

SiSiB® PC1220 can be used as adhesion promoters in one-part silylated urethane adhesives and sealants.

Packing and Storage

SiSiB® PC1220 is supplied in 200Kg steel drum or 950Kg IBC container.

In the unopened original container SiSiB® PC1220 has a shelf life of one year in a dry and cool place.

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Notes

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

We specifically disclaim any other express or implied warranty of fitness for a particular purpose or merchantability. We disclaim liability for any incidental or consequential damages.

Please send all technical questions concerning quality and product safety to: silanes@SiSiB.com.