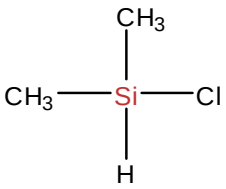
SiSiB® PC5210 SILANE

Chemical Name

Dimethylchlorosilane

Chemical Structure



Introduction

SiSiB® Chlorosilanes are a group of reactive, chlorine-containing silicon compounds, used in many chemical processes. Each such compound has at least one silicon-chlorine bond.

Typical Physical Properties

CAS No.	1066-35-9
EINECS No.	213-912-0
Formula	C_2H_7ClSi
Molecular Weight	94.62
Boiling Point	36°C [760mmHg]
Flash Point	-25°C
Color and Appearance	Colorless clear liquid
Density $_{25/25°C}$	0.868
Refractive Index	1.3827 [20°C]
Purity:	Min.96.0%

Applications

All chlorosilanes react with water to produce hydrogen chloride. The remaining hydroxyl group bonds to the silicon, initially forming a silol group (analogous to alcohol). In general,

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this will eventually bond to a solid oxide surface or react with another chlorosilane or silol molecule. In the latter cases, the oxygen atom forms a link between two silicon atoms, analogous to the ether linkage in organic chemicals, and identical to the bonding in silicon dioxide.

Organic chlorosilanes are usually used as coatings for silicon and glass surfaces, and in the production of silicone (polysiloxane) polymers.

Methyl chlorosilanes have one to three methyl groups. In the case of dichlorodimethylsilane, two chlorine atoms are available, so that a reaction with excess water produces a linear chain of ether-like linkages between silicon atoms. As in polyethers, these flexible linkages produce a rubbery polymer, polydimethylsiloxane (PDMS). Trichloromethylsilane can be used to induce branching and cross-linking in PDMS molecules, while chlorotrimethylsilane serves to end backbone chains, limiting molecular weight.

Packing and Storage

SiSiB® PC5210 is supplied in 170Kg steel drum.

In the unopened original container SiSiB® PC5210 has a shelf life of one year in a dry and cool place.

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.

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

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