

Product Information

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Aerosil & Silanes

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Phone: +86-21-6119-1052
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Siridion®

Siridion® SIH

Silane, Monosilane

Chemical Formula



Description

Silane is prepared from trichlorosilane by disproportionation.

Technical data

Property	Value	Unit	Method
molecular weight	32.12	-	-
density (0 C°, 1 bar)	1.44	g/l	-
purity (assay)	> 99	%	GC (Evonik Degussa)
boiling point (1 bar)	-111	°C	-
melting point	-186	°C	-
ignition temperature	< 85	°C	-
appearance	colourless gas	-	-
The values given in this Product Information are intended to describe the product.			Decisive documents are agreed specifications and the Material Safety Data Sheet (MSDS).

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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Reactivity

Silane is extremely flammable and autocombustible in the open air forming water vapour and silica. Silane may show violent reactions with oxidizing substances. Silane may form spontaneously combustible, highly explosive mixtures with air. Exposure to fire can cause the container to burst/explode. Outflowing gas can not be extinguished.

Silane is sensitive to hydrolysis. In contact with moisture silane decomposes under formation of silica and hydrogen. It must be stored in closed containers excluding moisture and air. Protection from direct sunlight and heat is necessary.

The containers must be closed tightly after each time material is withdrawn. Owing the high flammability of silane, handling has to be carried out in closed systems with inert atmosphere.

In case of inhalation a physician has to be consulted immediately.

When handling the product, skin and eyes must be protected by the wearing of gloves, eye protection and, if appropriate, a breathing mask. Should product nevertheless get onto the skin or into the eyes, the affected area must first be rinsed with plenty of water and, if contact with the eyes has occurred, a physician should be consulted.

Applications

Silane is used for the deposition of silicon layers in semiconductor manufacturing or for production of solar cells.

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Registration

EINECS/ELINCS (EU):	Yes
AICS (Australia):	Yes
DSL (Canada):	Yes
PICCS (Philippines):	Yes
TSCA (USA):	Yes
IECSC (P.R. China):	Yes
ENCS (Japan):	Yes
ECL (South Korea):	Yes

Safety and Handling

Before considering the use of any chemical thoroughly read its Material Safety Data Sheet (MSDS) for safety and toxicological data as well as for information on proper transportation, storage and use. The Material Safety Data Sheet is available after registration on our website www.dynasylan.com or upon request from your local representative.

Silane:

Hazard symbol: F+ = extremely flammable;
(Safety phrases: 9, 16, 33)

Keep container in a well ventilated place. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Information on the classification of the product under dangerous goods regulations and the German regulation on dangerous substances, safety data and data on toxicology and storage may be found in our Material Safety Data Sheets (MSDS).

Packaging and Storage

Information with regard to packaging is available on request.

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