

# Siridion® HCDS

## Hexachlorodisilane, HCDS

### Technical data

Properties and test methods	Value	Unit	Method
molecular weight	268.86		
density (20 °C)	1.562	g/cm <sup>3</sup>	DIN 51757
boiling point (1 bar)	144 - 145	°C	DIN 51751
melting point	3	°C	DIN 91597
flash point	78	°C	DIN 51755
appearance	clear, colourless liquid		

The values given in this product information are intended to describe the product. Decisive documents are agreed specifications and the Safety Data Sheet (SDS).

### Registration

#### Siridion® HCDS

Europe (EINECS/ELINCS)	YES
Australia (AICS)	YES
Canada (NDSL)	NO
Philippines (PICCS)	YES
USA (TSCA)	YES
P.R. China (IECSC)	YES
Japan (ENCS)	YES
South Korea (ECL)	YES
New Zealand (NZIoC)	NO
Taiwan (TSCA)	YES

### Description

Hexachlorodisilane is a liquid colourless, pungent-smelling chlorosilane.

### Chemical formula

Si<sub>2</sub>Cl<sub>6</sub>

### Reactivity

Hexachlorodisilane is sensitive to hydrolysis and must be stored and transported in closed containers excluding moisture and air. Protection from direct sunlight and heat is necessary. Containers must be closed tightly after each time that material is taken out.

Chlorosilanes and their vapours decompose in presence of moisture to form silicon dioxide and hydrochloric acid. They react vigorously with water and with alcohols or other compounds containing reactive hydroxy groups. In case of hexachlorodisilane the hydrolysis products are shock sensitive and represent an explosion hazard.

Chlorosilanes are classified as highly corrosive. Inhalation of the product must be avoided. When handling the products, skin and eyes must be protected by wearing impermeable gloves, eye protection and, if appropriate, a breathing mask. Should splashes 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, an eye specialist should be consulted.

### Applications

High purity hexachlorodisilane is used as precursor for low temperature chemical vapour deposition of thin film layers of SiN, SiON or epitaxial Si in semiconductor manufacturing processes. In addition, hexachlorodisilane can be utilized for the selective reduction of phosphine oxides in the pharmaceutical industry.

## Safety and handling

Before considering the use of any chemical thoroughly read its Safety Data Sheet (SDS) for safety and toxicological data as well as for information on proper transportation, storage and use. Please take a careful look in our safety data sheet with our recommendation on material to be chosen and to be avoided for protection clothes and gloves. You will receive a Safety Data Sheet (SDS) automatically with your order. The Safety Data Sheet is available on our website [www.siridion.com](http://www.siridion.com) or upon request from your local representative.

Keep container tightly closed and dry. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Information on classification and labeling under dangerous goods regulations (GHS) and the German regulation on dangerous substances, safety data, detailed precautionary statements and data on toxicology and storage may be found in our safety data sheets (SDS).

### Important safety instructions

- Hydrolysis products are shock sensitive and present an explosion hazard.
- In the case of fire the instruction given in the SDS must be observed.
- Alkaline hydrolysis generates hydrogen.
- In the case of a product outlet: use binders only that are specified in the SDS.
- The use of unsuitable binders is hazardous.
- In case of a leakage the product will generate white incrustations.

Please do not remove these solids mechanically. These residues should be soluted and wasted in a plenty of water. Please observe the SDS instruction.

## Packaging and storage

Hexachlorodisilane is typically filled in stainless steel containers. For more information about available container sizes please contact your local sales representative.

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