

Siridion® HCDS

Hexachlorodisilane, HCDS

Technical data

Properties and test methods	Value	Unit	Method
molecular weight	268.86		
density (20 °C)	1.562	g/cm ³	DIN 51757
boiling point (1 bar)	144 - 145	°C	DIN 51751
melting point	-1	°C	
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 Material Safety Data Sheet (MSDS).

Registration

Siridion® HCDS

Europe (EINECS/ELINCS)	YES
Australia (AICS)	YES
Canada (NDSL)	YES
Philippines (PICCS)	YES
USA (TSCA)	YES
P.R. China (IECSC)	YES
Japan (ENCS)	YES
South Korea (ECL)	YES

Description

Hexachlorodisilane represents a liquid colourless chlorosilane with pungent odor.

Chemical formula



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 moisture to form silicon dioxide and hydrochloric acid. They react vigorously with water or aqueous solutions and with alcohols or compounds containing active hydrogen atoms. In the case of hexachlorodisilane 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 the wearing of 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 for 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 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 <http://www.siridion.com> or upon request from your local representative.

Hexachlorodisilane:

Hazard symbol: corrosive

(Hazard statements H314, EUH014, EUH071)

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 the classification of the products under dangerous goods regulations and the German regulation on dangerous substances, safety data, detailed precautionary statements and data on toxicology and storage may be found in our material safety data sheets (MSDS).

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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