

# Siridion® DCS

## Dichlorosilane, DCS

### Technical data

Properties and test methods	Value	Unit	Method
molecular weight	101.01		
density (20 °C)	1.22	g/cm <sup>3</sup>	DIN 51757
purity	min. 99.0	%	GC (Evonik)
boiling point (1 bar)	8.3 (47)	°C (°F)	DIN 51751
melting point	-122 (-188)	°C (°F)	
flash point	-37 (-34.6)	°C (°F)	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® DCS

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

### Description

Dichlorosilane (SiH<sub>2</sub>Cl<sub>2</sub>) is prepared from trichlorosilane by disproportionation.

### Chemical formula



### Reactivity

Dichlorosilane is sensitive to hydrolysis. It must be stored and transported in closed containers excluding of moisture and air. Protection from direct sunlight and heat is necessary.

Dichlorosilane is highly flammable. Mixtures of DCS vapours with air are explosive and can ignite spontaneously under certain conditions.

The containers must be closed tightly after each time that material is taken out. Owing the high flammability of dichlorosilane, handling has to be carried out under a blanket of inert gas.

Dichlorosilane (e.g. nitrogen) and its vapours decompose on contact with 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.

Dichlorosilane is classified as highly corrosive. Inhaling of the products must be avoided. When handling the product, skin and eyes must be protected by the wearing of impermeable 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, an eye specialist should be consulted.

### Applications

Dichlorosilane is used for the deposition of epitaxial silicon layers on silicon wafers in semiconductor manufacturing.

## 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.

### Dichlorosilane:

Hazard symbol: flammable, toxic, corrosive  
(Hazard statements: H220/H261/H314/H330,  
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. In case of fire, never use water.

Information on the classification of the product 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

Pressurized stainless steel bottles, contents 9 and 45 kg.  
Alternative container sizes are available on request.

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