



Trichlorosilane The Electronics and Solar Industries Application SiHCl₃

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: CMC
- Certification: COA
- Model Number: SiHCl₃
- Minimum Order Quantity: 1kg
- Price: US \$500/kg
- Packaging Details: Cylinder/Tank
- Delivery Time: 30 days
- Payment Terms: L/C, T/T
- Supply Ability: 200 Tons/Year



Product Specification

- Product Name: Trichlorosilane
- Transport: By Sea
- Orign: China
- Purity: 99.99%
- Transport Package: Tanker
- Specification: Y-Cylinder
- Trademark: CMC
- Origin: China
- HS Code: 2812190091
- Supply Ability: 500ton/Month
- CAS No.: 10025-78-2
- Formula: SiHCl₃
- EINECS: 7783-82-6
- Constituent: Industrial Pure Air
- Grade Standard: Industrial Grade



More Images



Product Description

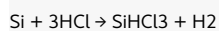
Product Description

Trichlorosilane (SiHCl₃) is a chemical compound composed of one silicon atom bonded to three chlorine atoms and one hydrogen atom. It is a colorless liquid at room temperature and is primarily used as a precursor in the production of silicon-based materials. Here are some key points about trichlorosilane:

Chemical Composition: Trichlorosilane consists of one silicon (Si) atom bonded to three chlorine (Cl) atoms and one hydrogen (H) atom. Its chemical formula is SiHCl₃.

Properties: Trichlorosilane is a volatile liquid with a boiling point of -23.8 degrees Celsius (-10.8 degrees Fahrenheit) and a melting point of -122 degrees Celsius (-187.6 degrees Fahrenheit). It has a pungent odor and is highly reactive.

Production: Trichlorosilane is primarily produced through the reaction of metallurgical-grade silicon with hydrogen chloride (HCl) gas:



This reaction typically occurs at high temperatures in the presence of a catalyst, such as copper.

Uses: Trichlorosilane has various industrial applications, particularly in the production of silicon-based materials:

Silicon Production: It is a key precursor in the production of polycrystalline silicon, which is used in the manufacturing of solar cells, semiconductors, and electronic devices.

Chemical Synthesis: Trichlorosilane is used as a starting material or intermediate in the synthesis of various silicon compounds, including silanes and silicones.

Semiconductor Industry: It is utilized in the deposition of thin films of silicon dioxide (SiO₂) or silicon nitride (Si₃N₄) on silicon wafers during the manufacturing of integrated circuits and other semiconductor devices.

Safety Considerations: Trichlorosilane is highly flammable and toxic. It can cause severe burns upon contact with the skin or eyes. Inhalation of its vapors can be harmful to the respiratory system. Proper safety precautions, such as the use of protective equipment and appropriate handling procedures, should be followed when working with trichlorosilane.

When handling trichlorosilane, it is important to ensure proper ventilation and take necessary safety measures to prevent exposure and potential risks associated with its reactivity and toxicity.

Basic Info.

Model No:	SiHCl ₃	Quality	Electron Grade
Transport Package	Y-Cylinder, T-Drum, Tt, Tanker	Specification	20L, 40L, 280L and customizable
Trademark	CMC	Origin	Suzhou, China
HS Code	2812190091	Production Capacity	500ton/Month

Specification:

Trichlorosilane is a silicon precursor for epitaxial silicon-containing thin films, especially for the preparation of starting wafers.

Purity %:	≥99.85
Resistivity:	≥ 300 ohm-cm
Boron:	≤ 0.1 ppba silicon
Total Carbon:	≤ 5 ppma
Iron:	≤ 5 ppba
Other Chlorosilane :	≤ 500 ppm
Cylinder State @ 21.1°C :	Liquid
Flammable Limits In Air :	7-83%
Auto Ignition Temperature (°C):	182
Molecular Weight (g/mol):	135.45
Specific gravity (air =1):	4.67
Critical Temperature (°C):	242.5

Detailed Photo





Company
Profile



Shanghai Kemike Chemical Co., Ltd is staffed by trained personnel, combine many years experience in Gas industry .We supply cylinder gas, electronic gas, etc ., and the gas holder, panel, valves and fittings and other equipment, parts and engineering services to our customers in China and worldwide; The products are involved in various industrial fields, such as semiconductor chip, solar cell, LED, TFT-LCD, optical fiber, glass, laser, medicine , etc., Our mission is to partner with our global customers to provide support, solutions and quality products that are innovative, reliable, and safe. Our products mainly include: H₂, O₂, N₂, Ar, CO₂, propane, acetylene, helium, laser mixed gas, SiH₄, SiH₂Cl₂, SiHCl₃,

SiCl₄, NH₃, CF₄, NF₃, SF₆, HCL, N₂O, doping mixed gas (TMB, PH₃, B₂H₆) and other electronic gases.

SiCl ₄	NH ₃	NH ₃	CH ₃ F	SiH ₄	Kr	H ₂ S	WF ₆	F ₆ +Cl ₂
4MS	C ₃ F ₈	C ₃ F ₈	TEOS	CH ₄	PH ₃	SF ₆	C ₂	HCl+Ne
CF ₄	C ₄ F ₈	SiH ₂						TMB+H ₂
SiF ₄	C ₃ H ₈	Cl ₂						He +As
BBr ₃	C ₃ H ₆	DCE						Ge+Se
POCl ₃	N ₂	SO ₂						D+B
BCl ₃	D ₂	CO ₂						CO+NO
SiHCl ₃	CH ₂ F ₂	HF						Ar+O ₂
TMAI	DMZn	DEZn						Xe+NO
AsH ₃	C ₂ H ₄	C ₂ H ₂	HBr	COS	Ar+O ₂			
GeH ₄	C ₂ H ₆	B ₂ H ₆	H ₂ Se	GeCl ₄	Xe+NO			



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