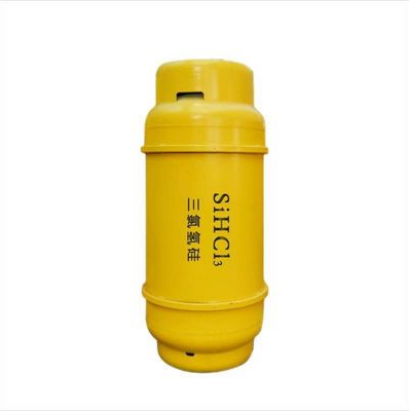
Trichlorosilane The Electronics and Solar Industries Application Sihcl3

Our Product Introduction

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

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:

Si + 3HCl → SiHCl3 + H2

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.

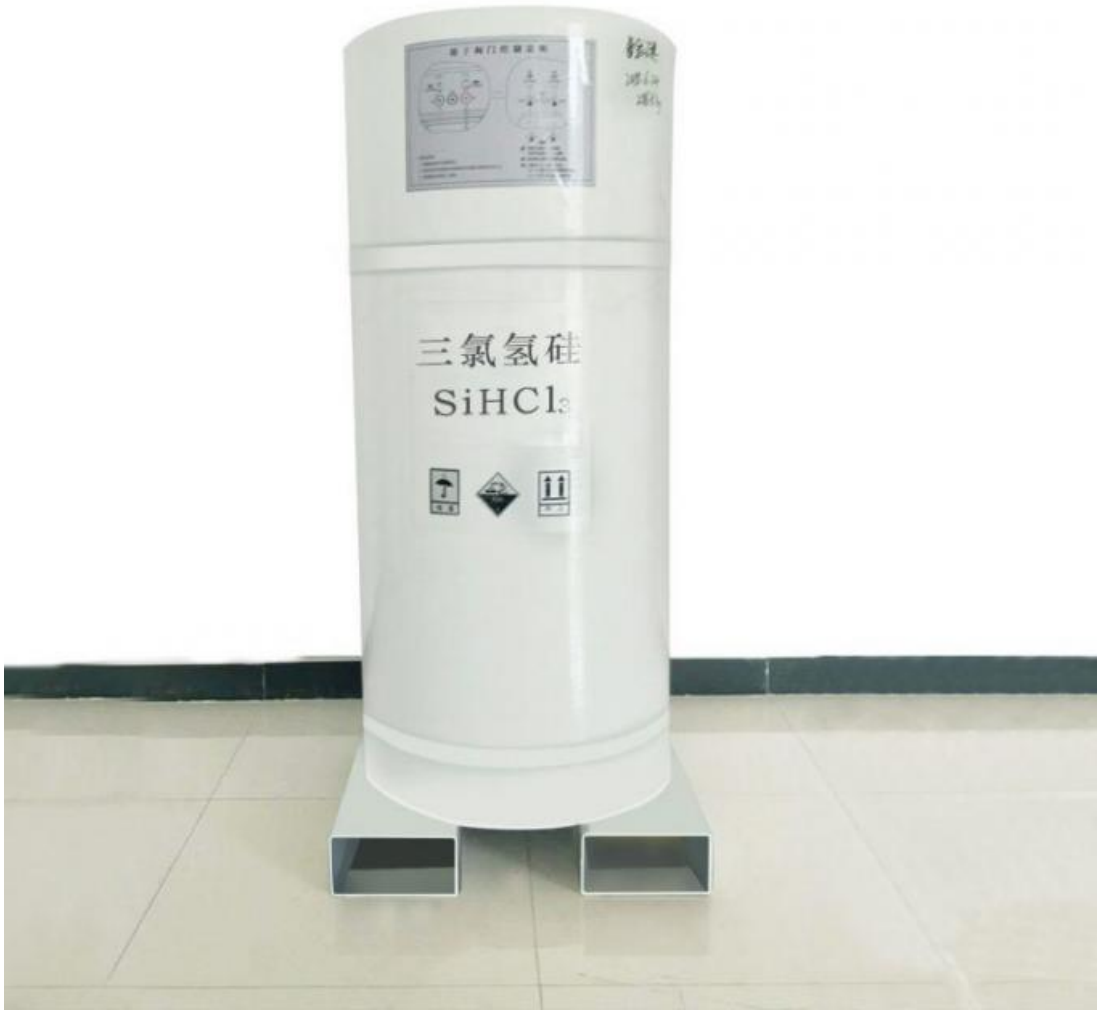
Model No:	SiHCl3	Quality	Electron Grade
Transport Package	Y-Cylinder, T-Drum, Tt, Tanker	Specification	20L, 40L, 280L and customizable
Trademark	CMC	Origin	Suzhou, China
HS Code	2812190091	Production Capacity	500ton/Month

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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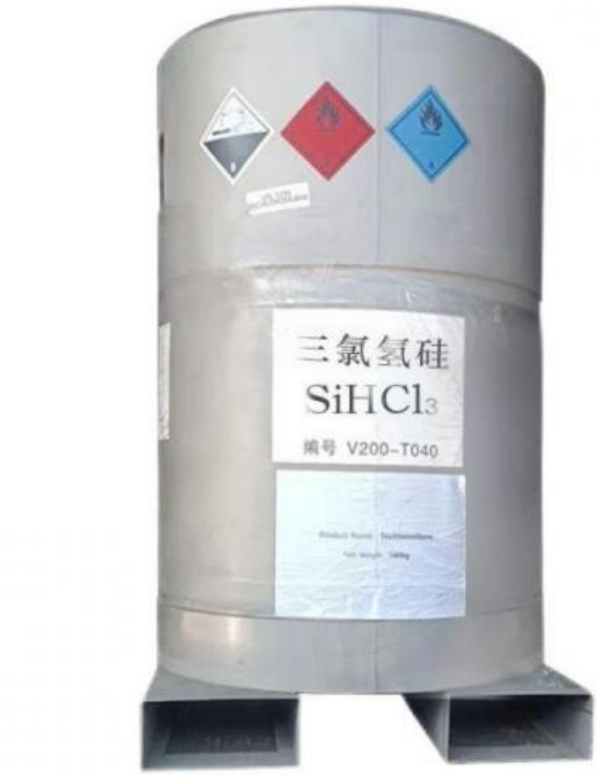
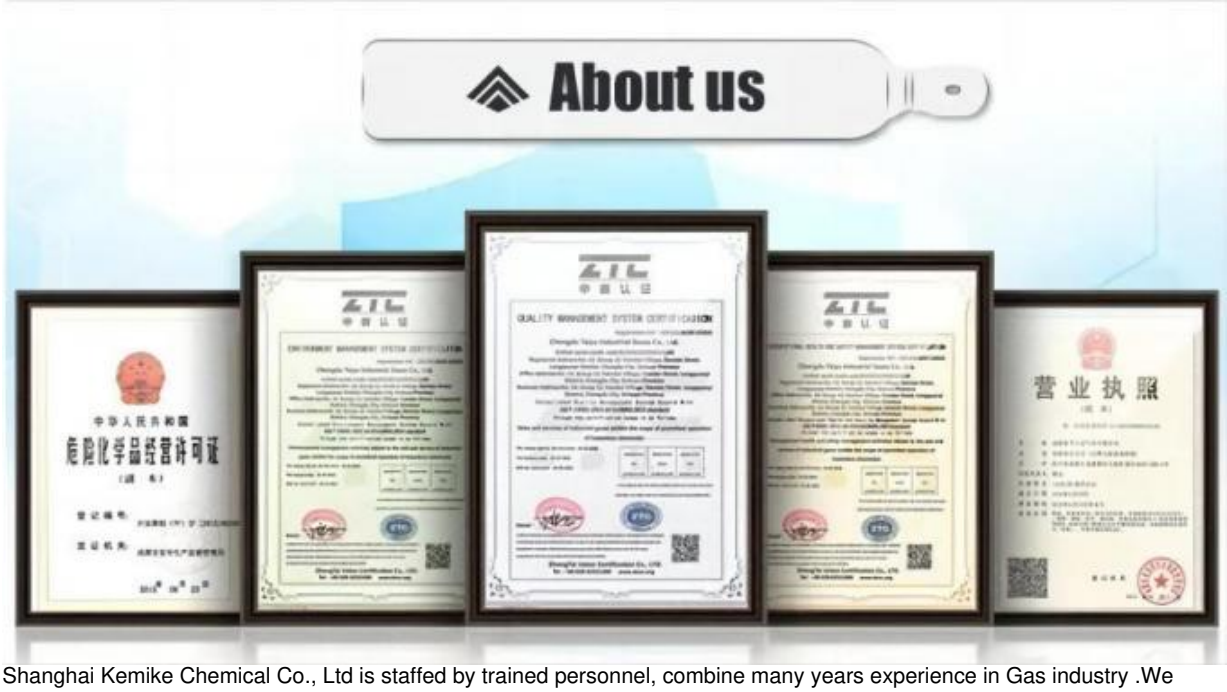
SiHCl3



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.

SiCl4	NH3	NH3	CH3F	SiH4	Kr	H2S	WF6	F6+Cl2
4MS	C3F8	C3F8	TEOS	CH4	PH3	SF6	C2	HCl+Ne
CF4	C4F8	SiH2						TMB+H2
SiF4	C3H8	Cl2						He +As
BBr3	C3H6	DCE						Ge+Se
POCl3	N2	SO2						D+B
BCl3	D2	CO2						CO+NO
SiHCl3	CH2F2	HF	AsH3	C2H4	C2H2	HBr	COS	Ar+O2
TMAl	DMZn	DEZn	GeH4	C2H6	B2H6	H2Se	GeCl4	Xe+NO

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