

Solar Cells Integrated Circuits and Other Electronic Components Production Usage Sihcl3 Trichlorosilane

Basic Information

Place of Origin: China
Brand Name: CMC
Certification: COA
Model Number: Sihcl3
Minimum Order Quantity: 1kg
Price: US \$5

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%

Model No.: Puritytrichlorosilane Gas
Transport Package: Sea Transportation
Specification: 40L 50L 200L

CMC Trademark: · Origin: China . HS Code: 2812190091 • Supply Ability: 100t/Year 10025-78-2 · CAS No.: Formula: Sihcl3 • EINECS: 7783-82-6 Constituent: Industrial Mixture



More Images









Product Description

Product Description

Trichlorosilane (SiHCl3) is a chemical compound composed of one silicon (Si) atom bonded to three chlorine (Cl) atoms and one hydrogen (H) atom. It is a colorless, volatile liquid at room temperature. Trichlorosilane is an important precursor in the production of various silicon-based materials, particularly polysilicon, which is used in the manufacturing of semiconductors and solar cells. 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 31.8 degrees Celsius (89.2 degrees Fahrenheit) and a melting point of -127.5 degrees Celsius (-197.5 degrees Fahrenheit). It has a pungent odor and is highly reactive.

Production: Trichlorosilane is primarily produced through the reaction of metallurgical-grade silicon (MG-Si) with hydrogen chloride (HCl) gas: $Si + 3HCl \rightarrow SiHCl3 + H2$

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

Uses: Trichlorosilane has a significant industrial application:

Polysilicon Production: Trichlorosilane is a key precursor in the production of polysilicon, which is used in the manufacturing of semiconductors, solar cells, and other electronic devices. Trichlorosilane is first purified and then subjected to chemical vapor deposition (CVD) processes to form polysilicon films.

Safety Considerations: Trichlorosilane is toxic and flammable. It is harmful if swallowed, inhaled, or comes into contact with the skin or eyes. Trichlorosilane can also release hydrogen gas when exposed to moisture or water. Proper safety precautions, such as the use of protective equipment, good ventilation, and appropriate handling procedures, should be followed when working with trichlorosilane.

It is important to handle trichlorosilane with care and adhere to safety measures to mitigate potential risks associated with its toxicity and flammability.

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.

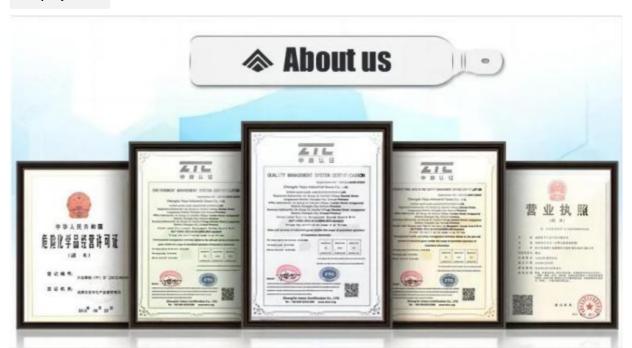
Purity %:	≥99.85	
Resistivity:	≥ 300 ohm-cm	
Boron:	≤ 0.1 ppba silicon	
Total Carbon:	≤ 5 ppma	
Iron:	≤ 5 ppba	
Other Chlorosilane:	≤ 500 ppm	
Cylinder State @ 21.1°C:	Liquid	
Flammable Limits In Air :	7-83%	
Auto Ignition Temperature (°C):	182	
Molecular Weight (g/mol):	135.45	
Specific gravity (air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

Detailed Photos





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.

CH3F F6+CI2 WF6 SiCI4 NH3 NH3 SiH4 Kr H₂S

C2 C3F8 C3F8 **TEOS** CH4 PH₃ SF6 HCI+Ne 4MS

SiH2 CF4 C4F8

SiF4 **C3H8** CI2

DCE BBr3 **C3H6**

POCI3 SO2 N2

BCI3 D2 CO₂

SiHCI3 CH2F2 HF

TMAI DMZn DEZn AsH3 C2H2

C2H4

GeH4

C2H6

B2H6

H2Se

HBr

GeCl4

COS

Xe+NO

TMB+H2

He +As

Ge+Se

D+B

CO+NO

Ar+O2





