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

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%
- Model No.: Puritytrichlorosilane Gas
- Transport Package: Sea Transportation
- Specification: 40L 50L 200L
- Trademark: CMC
- Origin: China
- HS Code: 2812190091
- Supply Ability: 100t/Year
- CAS No.: 10025-78-2
- Formula: Sihcl3
- EINECS: 7783-82-6
- Constituent: Industrial Mixture

More Images

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 → 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


三氯氢硅
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

Shanghai Kemike Chemical Co.,Ltd

+86 18762990415 williamchen@cmc-chemical.com gascylindertank.com