Optical Fiber Semiconductor Manufacturing 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: 2000 Tons/Year

Product Specification

- Product Name: Trichlorosilane
- Grade: Electron Grade
- Transport: By Sea
- Pressure: 0.1MPa≤p<1.6MPa
- Specification: 40L, 200L
- Trademark: CMC
- Origin: Suzhou, China
- HS Code: 2812190091
- Supply Ability: 1000t/Year
- CAS No.: 7783-82-6
- Formula: Sihcl3
- EINECS: 7783-82-6
- Constituent: Industrial Mixture
- Grade Standard: Electronic Grade
- Chemical Property: Inflammable Gas

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, volatile liquid at room temperature. 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 -23.66 degrees Celsius (-10.59 degrees Fahrenheit) and a melting point of -132.2 degrees Celsius (-206 degrees Fahrenheit). It has a pungent odor similar to hydrochloric acid.

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

Si + 3HCl → SiHCl3 + H2

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

Uses: Trichlorosilane is a key intermediate in the production of various silicon-based materials:

Silicon Production: Trichlorosilane is used as a precursor in the manufacturing of high-purity silicon, which is essential for the production of semiconductors and solar cells. It undergoes chemical vapor deposition (CVD) to deposit silicon onto a substrate, forming polycrystalline silicon or epitaxial silicon layers.

Silicones: Trichlorosilane is a starting material in the synthesis of silicones, which are widely used in applications such as lubricants, sealants, adhesives, and medical devices.

Silanes: It is also employed as a precursor in the production of various organosilicon compounds, including silanes. Silanes find applications as coupling agents, surface modifiers, and as intermediates in the production of functional materials.

Safety Considerations: Trichlorosilane is a flammable and reactive compound. It is toxic and can cause skin and eye irritation upon contact. Inhalation of its vapors or fumes 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.

It's important to handle trichlorosilane with care and adhere to safety measures to mitigate potential risks associated with its flammability and reactivity.

Basic Info.

Model NO.	SiHCl3	Grade Standard	Electron Grade
Transport Package	Canister, Cylinder	Specification	40L, 200L
Trademark	CMC	Origin	Suzhou
HS Code	2812190091	Production Capacity	1000t/Year

Product Description

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

Specifications:

Test items		Unit	Test Result
Components	Purity	%	99.990
	Other CHLOROSILANE	%	0.010
	Co	ppb	0.01
Impurities			
	Cr	ppb	0.01
	Cu	ppb	0.01
	Fe	ppb	0.06
	Mn	ppb	0.01
	Ni	ppb	0.01
	V	ppb	0.01
	B	ppb	0.01
	Al	ppb	0.01
	P	ppb	0.01
	As	ppb	0.01
	Mo	ppb	0.01
	Total metal impurities	ppb	<1.00
P+As		ppb	0.02
C		ppm	<0.01
Gas Density		/	4.7

Detailed Photos


SiHCl3
三氯氢硅


三氯氢硅
SiHCl3
编号 V200-T040

Company

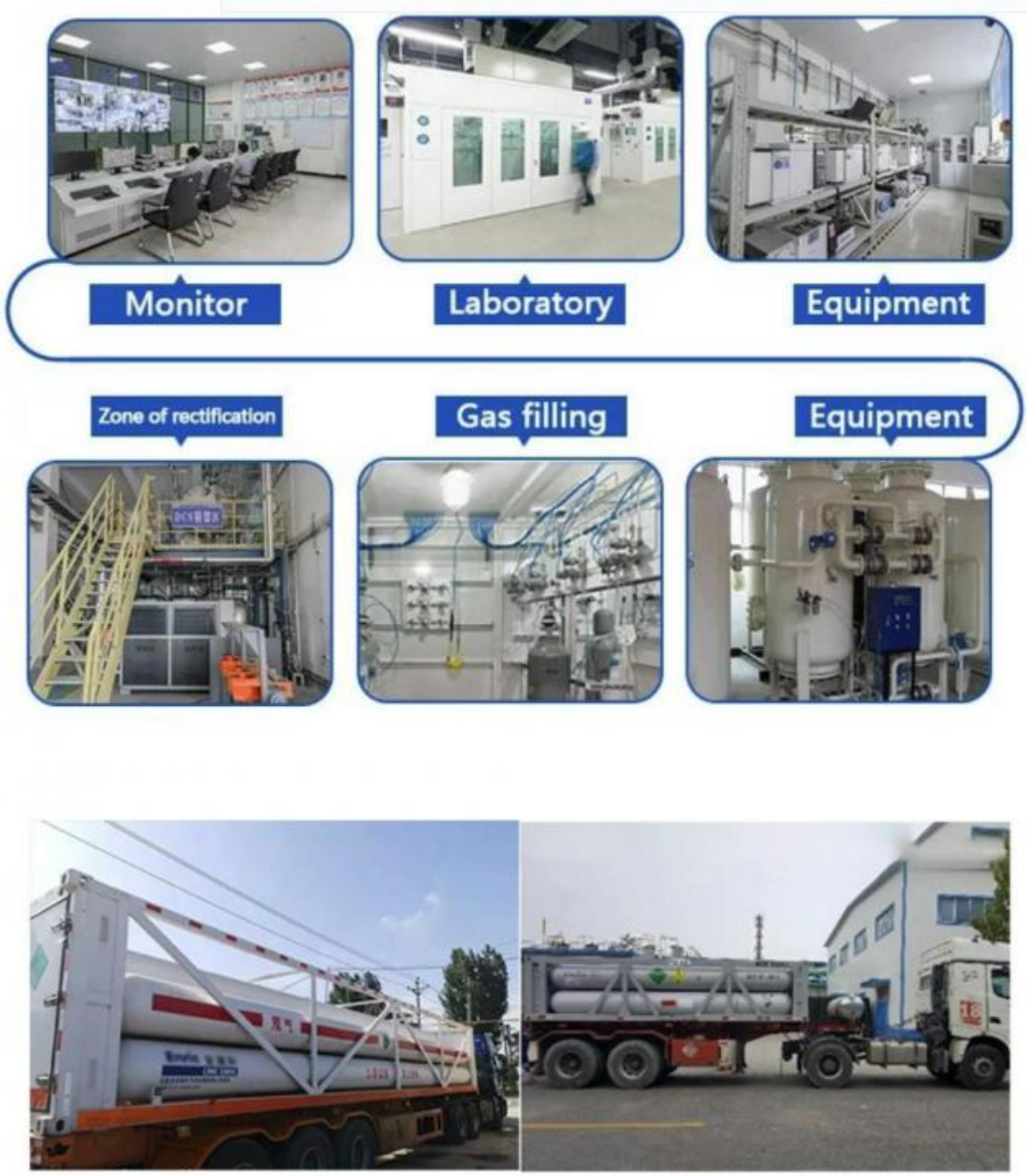
Profile

ShangHai CMC 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.

Workshop Display:

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

Storage Workshop:



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