Cylinder Gas High Purity 99.99% Industrial Sihcl3 Trichlorosilane Gas

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: 15 days
- Payment Terms: L/C, T/T
- Supply Ability: 20000 Tons/Year

Product Specification

- Productrichlorosilanet Name: Trichlorosilane Gas
- Transport: By Sea
- Grade: Electron Grade
- Purity: 99.99%
- Model No.: Sihcl3
- Specification: 40L, 200L
- Trademark: CMC
- Origin: China
- HS Code: 2812190091
- Supply Ability: 1000t/Year
- CAS No.: 7783-82-6
- 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 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 low-boiling, volatile liquid with a boiling point of -31.8 degrees Celsius (-25.2 degrees Fahrenheit). It has a pungent odor and is highly reactive. Trichlorosilane readily decomposes in the presence of water or moisture, releasing hydrogen chloride gas (HCl) and forming silicon dioxide (SiO2).

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

Si + 3HCl → SiHCl3 + H2

This reaction typically takes place 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: Trichlorosilane is a key precursor in the production of high-purity silicon. It is reacted with hydrogen gas (H2) in a chemical vapor deposition (CVD) process to deposit silicon onto a substrate, such as a silicon wafer, for semiconductor manufacturing.

Silicones: Trichlorosilane is used as a starting material in the synthesis of silicones, which are polymers with silicon-oxygen backbone structures. Silicones have diverse applications, including in sealants, adhesives, lubricants, and medical devices.

Chemical Synthesis: Trichlorosilane can be used as a reagent or intermediate in the synthesis of various silicon compounds, such as silanes and silicates.

Safety Considerations: Trichlorosilane is highly reactive and can decompose in the presence of water or moisture, releasing hydrogen chloride gas. It is also flammable and should be handled with appropriate precautions. Proper safety measures, such as working in a well-ventilated area and using protective equipment, should be followed when working with trichlorosilane.

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

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

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

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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