



Cylinder Gas High Purity 99.99% Industrial SiHCl₃ Trichlorosilane Gas

Our Product Introduction

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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

- Product/trichlorosilane 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:

$Si + 3HCl \rightarrow SiHCl_3 + H_2$

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
Impurities	Co	ppb 0.01
	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







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.

SiCl ₄	NH ₃	NH ₃	CH ₃ F	SiH ₄	Kr	H ₂ S	WF ₆	F ₆ +Cl ₂
4MS	C ₃ F ₈	C ₃ F ₈	TEOS	CH ₄	PH ₃	SF ₆	C ₂	HCl+Ne
CF ₄	C ₄ F ₈	SiH ₂						TMB+H ₂
SiF ₄	C ₃ H ₈	Cl ₂						He +As
BBr ₃	C ₃ H ₆	DCE						Ge+Se
POCl ₃	N ₂	SO ₂						D+B
BCl ₃	D ₂	CO ₂						CO+NO
SiHCl ₃	CH ₂ F ₂	HF						Ar+O ₂
TMAI	DMZn	DEZn						Xe+NO
AsH ₃	C ₂ H ₄	C ₂ H ₂	HBr	COS	Ar+O ₂			
GeH ₄	C ₂ H ₆	B ₂ H ₆	H ₂ Se	GeCl ₄	Xe+NO			



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