

ELECTRONIC GASES

TRICHLOROSILANE SiCl_3H

Trichlorosilane is a corrosive, colorless, flammable liquid with a suffocating odor.

The vapors are irritating to the mucous membranes and form dense fumes when exposed to humid air. It hydrolyses rapidly in moist air, releasing hydrogen chloride. It is shipped in special stainless steel containers, capable of delivering either vapor or liquid.

Container Information

CYLINDER SIZE	CONTENTS		Pressure@21.1°C	5-20 psig (pressurized with a N ₂ head)
	LB	KG		
210MC ₁	550	249.5	Valve Outlet (as requested) DOT Shipping Description:	SWAGelok, VCO, VCR Trichlorosilane 4.3, UN 1295, PG I Dangerous When Wet Flammable Liquid Corrosive
38L	100	45.4	DOT Shipping Labels	
			DOT Guide No.	38
			CAS Registry No.	10025-78-2

* ASME Container also available.

Specifications

COMPONENT	ELECTRONIC
TRICHLOROSILANE	99.95%
Resistivity	> 300 ohm-cm
Boron	< 0.1 ppba silicon
Total Donor	< 0.8 ppba silicon
Total Carbon	< 5 ppma
Iron	< 5 ppba
Other Chlorosilane	< 500 ppm

SHELF LIFE: 2 years

Physical Properties

Molecular Weight	135.45
Flammability Limits in air	7.0 - 83.0%
Density, Liquid @ Boiling Point, 1 atm	12.4lb/gal (1.48g/m)
Boiling Point	89.4°F (31.9°C)
Melting Point	-94°F (-70°C)
Triple Point @ 5.11 atm	-69.9°F (-56.6°C)
Critical Temperature	468°F (242.5°C)
Critical Pressure	499.7 psia (34.5 bar)
Toxicity (as HCl, a 3 to 1 ratio)	
PEL/TLV as HCl	5 ppm
LC ₅₀	1040 ppm