

ELECTRONIC GAS

HALOCARBON-23 (Trifluoromethane, Fluoroform) CHF₃

Trifluoromethane is a colorless, non-flammable and liquefied gas. It is used in plasma etching of silicon oxide or nitride layers. It is shipped as a liquefied gas under its own vapor pressure.

Container Information				
CYLINDER SIZE	CONTENTS		Pressure @ 21.1°C Valve Outlet	635 psig CGA-660 / DISS-716
	LB	KG		
044	70	31.8	DOT Shipping Description:	Trifluoromethane, 2.2, UN 1984
016	20	9.1	DOT Shipping Labels	Non-flammable Gas
010	11	5.0	DOT Guide No. CAS Registry No.	12 75-46-7

Specifications		
COMPONENT TRIFLUOROMETHANE	ULSI 99.999% min	VLSI 99.995% min
Acidity (as HCl)	< 1 ppm	< 1 ppm
Air	< 2 ppm	< 10 ppm
Carbon Dioxide	< 2 ppm	< 5 ppm
Other Halocarbons	< 3 ppm	< 5 ppm
Methane	< 1 ppm	< 5 ppm
Water	< 1 ppm	< 20 ppm
SHELF LIFE: 2 years		

Physical Properties	
Molecular Weight	70.01
Flammability Limits in air	Non-flammable
Specific Gravity, Gas @ 70°F(21.1°C), 1 atm(Air=1)	2.417
Density, Gas @ 70°F(21.1°C), 1 atm	0.182lbs/ft ³ (2.91g/l)
Specific Volume, Gas @ 70°F(21.1°C), 1 atm	5.5ft ³ /lb (0.343l/g)
Boiling Point @ 1 atm	-115.6°F (-82.0°C)
Melting Point @ 1 atm	-247.4°F (-155.2°C)
Critical Temperature	78.3°F (25.7°C)
Critical Pressure	697 psia (48.1 bar)
Toxicity	Causes dizziness in high concentrations