

ELECTRONIC GASES

HALOCARBON 14 (Carbon Tetrafluoride, Tetrafluoromethane) CF₄

Carbon Tetrafluoride is a colorless, relatively nontoxic, nonflammable gas with a slight ether-like odor. It is shipped as a compressed gas.

Container Information

CYLINDER SIZE	CONTENTS		Pressure@21.1°C	044: 2000 psig 016: 1250 psig
	LB	KG		
044	70.4	32.0	Valve Outlet	CGA-580
016	11.0	5	DOT Shipping Description:	Tetrafluoromethane, 2.2, UN 1080
			DOT Shipping Labels	Nonflammable Gas
			DOT Guide No. CAS Registry No.	12 75-73-0

Specifications

COMPONENT	ULSI	VLSI
HALOCARBON-14	99.999%min	99.995%min
Carbon Monoxide	< 1 ppm	< 1 ppm
Nitrogen	< 5 ppm	< 20 ppm
Other Halocarbons	< 2 ppm	< 10 ppm
Oxygen	< 1 ppm	< 5 ppm
Water	< 1 ppm	< 1 ppm
SHELF LIFE: 2 years		

Physical Properties

Molecular Weight	88.01
Flammability Limits in air	Nonflammable
Specific Gravity, Gas @ 70°F(21.1°C), 1 atm(Air=1)	3.05
Density, Gas @ 70°F(21.1°C), 1 atm	0.228lbs/ft³ (3.65g/l)
Specific Volume, Gas @ 70°F(21.1°C), 1 atm	4.4ft³/lb (275ml/g)
Boiling Point @ 1 atm	-198.2°F (-127.9°C)
Melting Point @ 1 atm	-304.2°F (-186.8°C)
Critical Temperature	50.0°F (-45.6°C)
Critical Pressure	542.3 psia (37.4 bar)
Toxicity	Non-Toxic, asphyxiant only