

ELECTRONIC GAS

SULFUR HEXAFLUORIDE

Sulfur hexafluoride is a colorless, odorless, non-toxic gas. It is used as a fluorine source for high density plasma etching without generating carbon by-products. It can be used for etching metal silicides (especially tungsten etchback), nitrides and oxides versus their metal substrates. It is readily liquefied and is shipped in steel cylinders as a liquefied gas under its own vapor pressure.

Container Information				
CYLINDER SIZE	CONTENTS		Pressure @ 21.1°C Valve Outlet DOT Shipping Description:	320 psig CGA-590 / DISS-716 Sulfur Hexafluoride 2.2, UN 1080
	LB	KG		
044	110	50		
016	35	15.9	DOT Shipping Labels DOT Guide No.	Non-flammable Gas 12
010	22	10	CAS Registry No.	2251-62-4

Specifications		
COMPONENT SULFUR HEXAFLUORIDE	ULSI 99.999% min	VLSI 99.995% min
Carbon Tetrafluoride	< 2 ppm	< 5 ppm
Hydrogen Fluoride	< 0.3 ppm	< 0.3 ppm
Nitrogen	< 2 ppm	< 10 ppm
Oxygen	< 1 ppm	< 5 ppm
THC (as Methane)	< 1 ppm	< 1 ppm
Water	< 3 ppm	< 5 ppm

SHELF LIFE: 2 years

Physical Properties	
Molecular Weight	146.1
Flammability Limits in air	Non-flammable
Specific Gravity, Gas @ 70°F(21.1°C), 1 atm(Air=1)	5.11
Density, Gas @ 70°F(21.1°C), 1 atm	0.385lbs/ft ³ (6.2g/l)
Specific Volume, Gas @ 70°F(21.1°C), 1 atm	2.5ft ³ /lb (0.156l/g)
Sublimation Point @ 1 atm	-82.7°F (-63.7°C)
Critical Temperature	114°F (45.5°C)
Critical Pressure	545.2 psia (37.6 bar)
Toxicity	
TWA	1,000 ppm (OSHA)