

ELECTRONIC GAS

HALOCARBON C-318 (Octafluorocyclobutane) $c-C_4F_8$

Octafluorocyclobutane is a non-flammable, colorless, odorless and tasteless gas. It is used in semiconductor manufacturing as plasma etching of silicon dioxide or silicon layers with excellent selectivity. It is shipped as a liquefied gas under its own vapor pressure.

Container Information

CYLINDER SIZE	CONTENTS		Pressure @ 21.1°C Valve Outlet	25 psig CGA-660 / DISS-716
	LB	KG		
044	70	32	DOT Shipping Description:	Octafluorocyclobutane 2.2, UN 1976
016	20	9.1	DOT Shipping Labels DOT Guide No.	Non-flammable Gas 12
010	11	5.0	CAS Registry No.	115-25-3

Specifications

COMPONENT OCTAFLUOROCYCLOBUTANE	ULSI 99.999% min	VLSI 99.99% min
Acidity (as HCl)	< 0.1 ppm	< 0.1 ppm
Nitrogen	< 3 ppm	< 20 ppm
Other Halocarbons	< 2 ppm	< 10 ppm
Oxygen	< 2 ppm	< 8 ppm
Water	< 2 ppm	< 10 ppm

SHELF LIFE: 2 years

Physical Properties

Molecular Weight	200.03
Flammability Limits in air	Non-flammable
Specific Gravity, Gas @ 70°F(21.1°C), 1 atm(Air=1)	7.33
Density, Gas @ 70°F(21.1°C), 1 atm	0.541lbs/ft ³ (8.66g/l)
Specific Volume, Gas @ 70°F(21.1°C), 1 atm	1.85ft ³ /lb (0.116l/g)
Boiling Point @ 1 atm	21.5°F (-5.8°C)
Critical Temperature	239.5°F (115.3°C)
Critical Pressure	404.1 psia (27.9 bar)
Toxicity	Non-Toxic, asphyxiant only