

ELECTRONIC GASES

CARBON DIOXIDE CO₂

Carbon dioxide is a colorless, odorless, nontoxic and nonflammable gas. It is slightly acidic. It is shipped as a liquefied gas under its own vapor pressure.

Container Information

CYLINDER SIZE	CONTENTS		Pressure@21.1°C Valve Outlet	830 psig CGA-320
	LB	KG		
044	60	27.2	DOT Shipping Description:	Carbon Dioxide, 2.2, UN 1013
016	20	9.1	DOT Shipping Labels	Nonflammable Gas
008	10	4.5	DOT Guide No.	21
			CAS Registry No.	124-38-9

Specifications

COMPONENT	VLSI	ELECTRONIC
CARBON DIOXIDE	99.999%min	99.995%min
Carbon Monoxide	< 0.5 ppm	< 1.5 ppm
Nitrogen	< 5 ppm	< 40 ppm
Oxygen	< 2 ppm	< 5 ppm
THC (as Methane)	< 0.5 ppm	< 1 ppm
Water	< 1 ppm	< 1 ppm
SHELF LIFE: 2 years		

Physical Properties

Molecular Weight	44.01
Flammability Limits in air	Nonflammable
Specific Gravity,	
Gas @ 70°F(21.1°C), 1 atm(Air=1)	1.53
Density, Gas @ 70°F(21.1°C), 1 atm	0.1144lbs/ft³ (1.832g/l)
Specific Volume, Gas @ 70°F(21.1°C), 1 atm	8.70ft³/lb (0.543l/g)
Freezing Point @ 75.1 psia (518 kPa)	-69.83°F (-56.57°C)
Sublimation Point @ 1 atm	-110.0°F (-78.8°C)
Triple Point @ 5.11 atm	-69.9°F (-56.6°C)
Critical Temperature	87.9°F (31.0°C)
Critical Pressure	1070.8 psia (73.83 bar)
Toxicity	
STEL	30000 ppm
TLV-TWA	5000 ppm
TCLo (Inhalation Human) pulmonary effects	2000 ppm
LCLo RAT, 15 minutes	657190 ppm