

ELECTRONIC GAS

CARBON DIOXIDE CO₂

Carbon dioxide is a colorless, odorless, non-toxic and non-flammable gas. It is slightly acidic. It is used in waste water treatment, as a cooling medium in environment testing of electronic devices. It can also be used to add conductivity to ultrapure water, for CO₂ snow abrasive cleaning of residues on wafers. 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 / DISS-716
	LB	KG		
044	50	22.7	DOT Shipping Description:	Carbon Dioxide, 2.2, UN 1013
016	20	9.1	DOT Shipping Labels DOT Guide No.	Non-flammable Gas 21
010	14	6.4	CAS Registry No.	124-38-9

Specifications		
COMPONENT CARBON DIOXIDE	VLSI 99.999% min	ELECTRONIC 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	Non-flammable
Specific Gravity, Gas @ 70°F(21.1°C), 1 atm(Air=1)	1.53
Density, Gas @ 70°F(21.1°C), 1 atm	0.114lbs/ft ³ (1.828g/l)
Specific Volume, Gas @ 70°F(21.1°C), 1 atm	8.76ft ³ /lb (0.547l/g)
Sublimation Point @ 1 atm	-109.2°F (-78.4°C)
Triple Point @ 5.11 atm	-69.9°F (-56.6°C)
Critical Temperature	87.9°F (31.0°C)
Critical Pressure	1070.6 psia (73.85 bar)
Toxicity	
STEL	30000 ppm
TLV-TWA	5000 ppm
TCLo (Inhalation Human) pulmonary effects	2000 ppm
LCLo RAT, 15 minutes	657190 ppm

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