

ELECTRONIC GASES

HYDROGEN H₂

Hydrogen is a flammable, colorless, odorless, nontoxic gas that is lighter than air. It is shipped in steel cylinders under high pressure.

Container Information

CYLINDER SIZE	CONTENTS	Pressure@21.1°C	2000 psig
	CU.FT.	Valve Outlet	CGA-350
044	200	DOT Shipping Description:	Hydrogen, compressed, 2.1, UN 1049
		DOT Shipping Labels	Flammable Gas
		DOT Guide No.	22
		CAS Registry No.	1333-74-0

Specifications

COMPONENT	VSLI	UHP
HYDROGEN	99.9999%min	99.999%min
Carbon Dioxide	< 100 ppb	<i>Total</i> <i>< 10 ppm</i> <i>for all gases</i>
Carbon Monoxide	< 100 ppb	
Oxygen	< 100 ppb	
Nitrogen	< 500 ppb	
THC (as Methane)	< 100 ppb	
Water	< 500 ppb	
SHELF LIFE: 2 years		

Physical Properties

Molecular Weight	2.016
Flammability Limits in air	4.0 - 75.0%
Specific Gravity, Gas @ 70°F(21.1°C), 1 atm(Air=1)	0.07
Density, Gas @ 70°F(21.1°C), 1 atm	0.0052lbs/ft³ (0.0834g/l)
Specific Volume, Gas @ 70°F(21.1°C), 1 atm	192.0ft³/lb (11.99l/g)
Melting Point @ 75.1 psia (518 kPa)	-434.6°F (-259.2°C)
Boiling Point @ 1 atm	-422.98°F (-252.77°C)
Critical Temperature	-400.4°F (-240.2°C)
Critical Pressure	188.2 psia (12.98 bar)
Toxicity	Non-Toxic, asphyxiant only