

PURE GASES

HSG

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HEXAFLUOROETHANE C₂F₆

— See Halocarbon 116—

HYDROGEN H₂

General Characteristics: A colorless, flammable, and odorless gas.
Health Hazards: A simple asphyxiant.

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
SCIENTIFIC GRADE Min. Purity 99.9999% Total Impurities < 1 ppm	AL80	75 CF	Stainless-steel high purity double-stage regulator, refer to page 146 Stainless-steel lecture bottle regulator, refer to page 149
	Certificate of Analysis Provided With Each Cylinder.		
RESEARCH GRADE Min. Purity 99.9995% O ₂ < 0.5 ppm, N ₂ < 0.5 ppm, H ₂ O < 0.5 ppm CO + CO ₂ < 0.1 ppm, THC < 0.1 ppm	049	286 CF	Double-stage high purity regulator, refer to page 137
	044	216 CF	
	016	75 CF	High purity lecture bottle regulator, refer to page 148
	LB	2 CF	
ULTRA HIGH PURITY Min. Purity 99.999% O ₂ < 5 ppm, N ₂ < 1 ppm H ₂ O < 3 ppm , THC < 0.5 ppm	049	286 CF	
	044	216 CF	
	016	75 CF	
	LB	2 CF	
HIGH PURITY Min. Purity 99.995% THC < 0.5 ppm, O ₂ < 10 ppm, H ₂ O < 10 ppm	049	286 CF	
	044	216 CF	
	016	75 CF	
INDUSTRIAL GRADE Min. Purity 99.8% O ₂ < 0.2%, H ₂ O < 20 ppm	049	286 CF	
	044	216 CF	
	016	75 CF	
HIGH PRESSURE Min. Purity 99.99%	¹ 3HP (6000 psig)	483 CF	• Piston regulator, please refer to page 147
	² 2HP (3500 psig)	322 CF	

TECHNICAL INFORMATION

Molecular Weight	2.02	Dot Name	Hydrogen Compressed
Specific Volume	192CF/lb	UN No.	UN1049
Fire Potential	4.0 - 75% in Air	Dot Class	2.1
TLV-TWA	None established	Dot Label	Flammable Gas
CGA Valve	350, 3HP-703, 2HP-695	Cas Registry	1333-74-0
LB	180		

¹Size 3HP = 10" (o.d.) x 51" (h)

²Size 2HP = 9" (o.d.) x 50" (h)

HYDROGEN BROMIDE HBr

General Characteristics: A colorless, nonflammable, liquefied and corrosive gas with a penetrating odor. Fumes in moist air. Highly corrosive in the presence of moisture.
Health Hazards: Toxic. Attacks the mucous membranes and the eyes. Can cause lung damage.

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
SEMICONDUCTOR GRADE Min. Purity 99.9%		- See Electronic Gases Section -	
C.P. GRADE Min. Purity 99.8% (Liquid Phase)	044	130 lbs	Stainless-steel high purity single-stage regulator, refer to page 144
	016	50 lbs	
	008	25 lbs	Stainless-steel lecture bottle regulator, refer to page 149
	LB	1 lb	

TECHNICAL INFORMATION

Molecular Weight	80.92	Dot Name	Hydrogen Bromide, Anhydrous
Specific Volume	4.8CF/lb	UN No.	UN1048
Fire Potential	Nonflammable	Dot Class	2.3
TLV-TWA	3 ppm (ACGIH 1991-1992)	Dot Label	Poison Gas, Corrosive
CGA Valve	330	Cas Registry	10035-10-6
LB	180	Cylinder Pressure @ 70°F	320 psig