

PURE GASES

1,3-BUTADIENE C₄H₆

General Characteristics: A colorless, flammable, liquefied, and odorous gas. Can form peroxide in the presence of air. Contains inhibitors to prevent polymerization.

Health Hazards: Suspected carcinogen, irritant, and anesthetic at high concentrations.

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
C.P. GRADE Min. Purity 99.0% (Liquid Phase)	LP239	135 lbs	Single-stage high purity regulator, refer to page 142
	LP48	17 lbs	
	LP26	8.8 lbs	High purity lecture bottle regulator, refer to page 148
	LB	0.375 lbs	

TECHNICAL INFORMATION

Molecular Weight	54.09	Dot Name	Butadiene, Inhibited
Specific Volume	6.9CF/lb	UN No.	UN1010
Fire Potential	2.0 - 12.0% in Air	Dot Class	2.1
TLV-TWA	10 ppm (ACGIH 1991-1992)	Dot Label	Flammable Gas
CGA Valve	510	Cas Registry	106-99-0
LB	180	Cylinder Pressure @ 70°F	22 psig

N-BUTANE C₄H₁₀

General Characteristics: A colorless, flammable, liquefied gas with a faint odor.

Health Hazards: Relatively non toxic anesthetic in high concentrations.

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
RESEARCH GRADE Min. Purity 99.95%	E01	0.88 lbs	Single-stage high purity regulator, refer to page 142
	LB	0.375 lbs	
INSTRUMENTAL GRADE Min. Purity 99.5% (Liquid Phase)	¹ 454	540 lbs	High purity lecture bottle regulator, refer to page 148
	LP239	120 lbs	
	LP48	15.4 lbs	
	LB	0.375 lbs	
C.P. GRADE Min. Purity 99.0% Provided with Educator Tube for Liquid Withdrawal on Request	¹ 454	540 lbs	
	LP239	120 lbs	
	LP48	15.4 lbs	
	LB	0.375 lbs	

TECHNICAL INFORMATION

Molecular Weight	58.12	Dot Name	Butane Gas
Specific Volume	6.4CF/lb	UN No.	UN1011
Fire Potential	1.8 - 8.4% in Air	Dot Class	2.1
TLV-TWA	800 ppm (ACGIH 1991-1992)	Dot Label	Flammable Gas
CGA Valve	510	Cas Registry	106-97-8
LB	180	Cylinder Pressure @ 70°F	16.3 psig

¹Size 454 = 30" (o.d.) x 57" (h), equipped with helium head pressure and dip tube for liquid withdrawal.

1-BUTENE C₄H₈

General Characteristics: A colorless, flammable, and liquefied gas with a detectable odor.

Health Hazards: A simple asphyxiant

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
RESEARCH GRADE Min. Purity 99.7%	E01	0.88 lbs	Single-stage high purity regulator, refer to page 142
	LB	0.375 lbs	
C.P. GRADE Min. Purity 99.0% (Liquid Phase)	049	128 lbs	High purity lecture bottle regulator, refer to page 148
	016	32 lbs	
	008	17 lbs	
	008	2 lbs	
	LB	0.375 lbs	

TECHNICAL INFORMATION

Molecular Weight	56.11	Dot Name	Liquefied Petroleum Gas
Specific Volume	6.7CF/lb	UN No.	UN1075
Fire Potential	1.6 - 10% in Air	Dot Class	2.1
TLV-TWA	None established	Dot Label	Flammable Gas
CGA Valve	510	Cas Registry	590-18-1
LB	180	Cylinder Pressure @ 70°F	23.5 psig