

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. Min. Purity 99.0% (Liquid Phase)	110 LP 18 LP LB	61.3 kg 7.7 kg 170 g	Single-stage high purity regulator, refer to page 140 High purity lecture bottle regulator, refer to page 146

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 and 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 Min. Purity 99.95%	18 LP LB	7.0 kg 170 g	Single-stage high purity regulator, refer to page 140
INSTRUMENTAL Min. Purity 99.5% (Liquid Phase)	110 LP 18 LP LB	54.4 kg 7.0 kg 170 g	High purity lecture bottle regulator, refer to page 146
C.P. Min. Purity 99.0% Provided with Educator Tube for Liquid With- drawal on Request	454 110 LP 18 LP LB	232 kg 54.4 kg 7.0 kg 170 g	

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 Min. Purity 99.7%	18 LP LB	7.7 kg 170 g	Single-stage high purity regulator, refer to page 140
C.P. Min. Purity 99.0% (Liquid Phase)	110 LP 18 LP LB	58.0 kg 7.7 kg 170 g	High purity lecture bottle regulator, refer to page 146

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