

# PURE GASES

## DIMETHYL ETHER (CH<sub>3</sub>)<sub>2</sub>O

**General Characteristics:** A colorless, flammable and liquefied gas with an ether-like odor.

**Health Hazards:** Has an anesthetic effect in high concentrations. Contact with a liquid can cause cold burns.

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
<b>C.P.</b> Min. Purity 99.8% (Liquid Phase)	044	20 kg	Single-stage high purity regulator, refer to page 140
	016	9.0 kg	
	002	0.9 kg	High purity lecture bottle regulator, refer to page 146
	LB	227 g	

### TECHNICAL INFORMATION

Molecular Weight.....	46.07	Dot Name.....	Dimethyl Ether
Specific Volume.....	8.4CF/lb	UN No.....	UN1033
Fire Potential.....	3.4 - 27% in Air	Dot Class.....	2.1
TLV-TWA.....	None established	Dot Label.....	Flammable Gas
CGA Valve.....	510	Cas Registry.....	115-10-6
LB.....	180	Cylinder Pressure @ 70°F.....	62.3 psig

## ETHANE C<sub>2</sub>H<sub>6</sub>

**General Characteristics:** A colorless, flammable liquefied and odorless gas.

**Health Hazards:** A simple asphyxiant.

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
<b>RESEARCH</b> Min. Purity 99.99% (Liquid Phase) CO/CO <sub>2</sub> < 5 ppm, H <sub>2</sub> O < 5 ppm, N <sub>2</sub> < 5 ppm, O <sub>2</sub> < 2 ppm, Other HC < 50 ppm	044	14.5 kg	Double-stage high purity regulator, refer to page 134
	016	4.5 kg	
	010	3.6 kg	High purity lecture bottle regulator, refer to page 146
	LB	113 g	
<b>C.P.</b> Min. Purity 99.5% (Liquid Phase) CO/CO <sub>2</sub> < 30 ppm, H <sub>2</sub> O < 10 ppm, N <sub>2</sub> < 100 ppm, O <sub>2</sub> < 25 ppm, Other HC < 4000 ppm	044	14.5 kg	
	016	4.5 kg	
	010	3.6 kg	
	LB	113 g	

### TECHNICAL INFORMATION

Molecular Weight.....	30.07	Dot Name.....	Ethane, Compressed
Specific Volume.....	12.8CF/lb	UN No.....	UN1033
Fire Potential.....	3.0 - 12.4% in Air	Dot Class.....	2.1
TLV-TWA.....	None established	Dot Label.....	Flammable Gas
CGA Valve.....	350	Cas Registry.....	74-84-0
LB.....	180	Cylinder Pressure @ 70°F.....	544 psig

## ETHYL CHLORIDE C<sub>2</sub>H<sub>5</sub>Cl

**General Characteristics:** A colorless, flammable and liquefied gas with an ether-like odor.

**Health Hazards:** A simple asphyxiant. Has an anesthetic effect in high concentrations. Forms toxic products upon combustion or heating.

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
<b>C.P.</b> Min. Purity 99.7% (Liquid Phase)	016	11.3 kg	Stainless-steel high purity single-stage regulator, refer to page 142
	LB	227 g	
			Stainless-steel lecture bottle regulator, refer to page 147

### TECHNICAL INFORMATION

Molecular Weight.....	64.5	Dot Name.....	Ethyl Chloride
Specific Volume.....	6.0CF/lb	UN No.....	UN1037
Fire Potential.....	3.8 - 15.4% in Air	Dot Class.....	2.1
TLV-TWA.....	1000 ppm (ACGIH 1991-1992)	Dot Label.....	Flammable Gas
CGA Valve.....	510	Cas Registry.....	75-00-3
LB.....	180	Cylinder Pressure @ 70°F.....	5.3 psig