

PURE GASES

DIMETHYL ETHER (CH₃)₂O

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
C.P. GRADE Min. Purity 99.8% (Liquid Phase)	LP239	100 lbs	Single-stage high purity regulator, refer to page 142
	LP48	17 lbs	High purity lecture bottle regulator, refer to page 148
	LP26	10 lbs	
	LB	0.5 lb	

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

DISILANE SiH₆

– See Electronic Gases Section –

ETHANE C₂H₆

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

GAS GRADE/PURITY SPEC.	CYLINDER SIZE	CONTENTS	EQUIPMENT RECOMMENDATIONS
RESEARCH GRADE Min. Purity 99.95%, O ₂ < 10 ppm, N ₂ < 40 ppm, H ₂ O < 5 ppm, CO ₂ < 10 ppm, Other HC < 400 ppm	E01	1 lb	Single-stage high purity regulator, refer to page 142
	LB	0.25 lb	High purity lecture bottle regulator, refer to page 148
C.P. GRADE Min. Purity 99.0% (Liquid Phase)	044	32 lbs	
	016	12 lbs	
	008	3 lbs	
	LB	0.25 lb	

TECHNICAL INFORMATION

Molecular Weight	30.07	Dot Name	Ethane, Compressed
Specific Volume	12.8CF/lb	UN No.	UN1035
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 C₂H₅Cl

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
C.P. GRADE Min. Purity 99.7% (Liquid Phase)	LP239	175 lbs	Stainless-steel high purity single-stage regulator, refer to page 144
	016	25 lbs	Stainless-steel lecture bottle regulator, refer to page 149
	LB	0.5 lb	

TECHNICAL INFORMATION

Molecular Weight	64.52	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