

# Acetylene C<sub>2</sub>H<sub>2</sub>

Synonym: Ethyne

### Physical Constants of Gas

Molecular Weight ..... 26.038  
 Specific Volume ..... 14.7 CF/lb. (0.91 m<sup>3</sup>/kg)  
 Boiling Point ..... -103°F (-75°C) 10 psig  
 Gas Density 70°F 1 atm ..... 1.171 kg/m<sup>3</sup>

### Cylinder Data

CGA Valve Outlet ..... 410 (Canada Only), 510

### Shipping Data

Shipping Class ..... 70  
 DOT/TC Name ..... Acetylene, Dissolved  
 DOT/TC Class ..... 2.1 (Flammable Gas)  
 WHMIS Class ..... AB1F  
 DOT Label ..... Flammable Gas  
 CAS Registry No. .... 74-86-2  
 UN No./ATA No. .... UN1001

### Safety Information

Flammable gas.  
 Flammability limits: lower 2.5%; upper 80%.  
 Acetylene decomposes at high-pressure.  
**Do not discharge at pressures ≥ 15 psig.**  
**Do not use if cylinder pressure is ≤ 80 psig to avoid acetone contamination of process stream.**  
 An inline flash arrester is recommended for this product to prevent flash back in lines.  
**Caution: may form explosive compounds with certain metals like copper, mercury or silver.**

Specifications									Recommended Equipment	
Grade	Purity (Minimum)	Size	Contents		Pressure		Weight		Description Model Number	Page
			CF	m <sup>3</sup>	psig	bar	lbs.	kg		
ALPHAGAZ 1 N <sub>2</sub> < 0.4%	99.6%	70	330	9	250	17	227	103	Single-Stage Regulator Q1-202-(*)	268
Electronic Grade 2** AsH <sub>3</sub> + PH <sub>3</sub> < 25 ppm CH <sub>4</sub> < 100 ppm CO < 20 ppm CO <sub>2</sub> < 100 ppm H <sub>2</sub> < 50 ppm H <sub>2</sub> S < 25 ppm N <sub>2</sub> < 0.4% NH <sub>3</sub> < 5 ppm O <sub>2</sub> < 50 ppm	99.6%	70	330	9	250	17	227	103	Single-Stage Regulator Q1-202-(*)	268
Electronic Grade 1** AsH <sub>3</sub> + PH <sub>3</sub> < 25 ppm H <sub>2</sub> S < 25 ppm N <sub>2</sub> < 0.4% NH <sub>3</sub> < 5 ppm	99.6%	70	330	9	250	17	227	103	Single-Stage Regulator Q1-202-(*)	268

\* Specify CGA. Other cylinder connections are also available – please contact your Air Liquide representative.

\*\* Excluding acetone.

Our SCOTT™ gas delivery equipment is guaranteed to preserve the purity and integrity of your gas. See page 261.