



# Acetylene

## Description

Synonym: Ethyne, Ethine  
Formula:  $C_2H_2$

## Gas Data

Molecular Weight: 26.04  
Density: 1.09 kg/m<sup>3</sup> @ 21.1°C, 101.325 kPa  
0.0680 lb/ft<sup>3</sup> @ 70°F, 14.696 psia  
Specific Volume: 0.917 m<sup>3</sup>/kg @ 21.1°C, 101.325 kPa  
14.7 ft<sup>3</sup>/lb @ 70°F, 14.696 psia

## Safety Information

LFL in Air: 2.5%  
UFL in Air: 100%  
Property Statement: Forms explosive acetylides with copper, mercury or silver. Dissolved in acetone.

## Shipping Information

CAS Registry Number: 74-86-2  
UN Number: UN 1001  
ECCN Number: EAR99  
DOT Proper Shipping Name: Acetylene, Dissolved  
DOT Classification: 2.1 (Flammable Gas)  
DOT Label: FLAMMABLE GAS  
TC Shipping Name: Acetylene, Dissolved  
TC Classification: 2.1  
TC Label: FLAMMABLE GAS

## Cylinder Specifications

Cylinder Size	Valve Outlet CGA No.	Pressure		Approximate Ship Weight	
		psig @ 70°F	kPa @ 21.1°C	lb	kg
1B	510	250	1,724	210	95
2B	510	250	1,724	42	19

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.	Page No.
<b>Acetylene, Purified 99.6%</b> <i>Guaranteed Specifications</i> PH <sub>3</sub> < 15 ppm	G1301202	1B*	330 ft <sup>3</sup>	9.34 m <sup>3</sup>	Single Stage Reg. Flash Arrestor Personal Monitor Detector Tube	Series 18A-510 6103A-F* IQ250 8014-101S	292 434 398 391
	G1301241	2B*	40 ft <sup>3</sup>	1.13 m <sup>3</sup>			
<i>A Certificate of Conformance will be provided on request. *Contents may vary slightly due to porosity of filler material. Do Not Discharge This Gas At Pressures Exceeding 15 psig (104 kPa)</i>							
<b>Acetylene, CP Grade 98%</b>	G1301002	1B*	330 ft <sup>3</sup>	9.34 m <sup>3</sup>	Single Stage Reg. Flash Arrestor Personal Monitor Detector Tube	Series 18A-510 6103A-F* IQ250 8014-101S	292 434 398 391
<i>A Certificate of Conformance will be provided on request. *Contents may vary slightly due to porosity of filler material. Do Not Discharge This Gas At Pressures Exceeding 15 psig (104 kPa)</i>							