



# Ethylene

## Description

Synonym: Ethene  
Formula: C<sub>2</sub>H<sub>4</sub>

## Gas Data

Molecular Weight: 28.05  
Density: 1.26 kg/m<sup>3</sup> @ 0°C, 101.325 kPa  
0.0787 lb/ft<sup>3</sup> @ 32°F, 14.696 psia  
Specific Volume: 0.793 m<sup>3</sup>/kg @ 0°C, 101.325 kPa  
12.7 ft<sup>3</sup>/lb @ 32°F, 14.696 psia

## Safety Information

LFL in Air: 2.7%  
UFL in Air: 36%

## Shipping Information

CAS Registry Number: 74-85-1  
UN Number: UN 1962  
ECCN Number: 1C982  
DOT Proper Shipping Name: Ethylene, Compressed  
DOT Classification: 2.1 (Flammable Gas)  
DOT Label: FLAMMABLE GAS  
TC Shipping Name: Ethylene, Compressed  
TC Classification: 2.1  
TC Label: FLAMMABLE GAS

## Cylinder Specifications

Cylinder Size	Valve Outlet CGA No.	Pressure psig @ 70°F	Pressure kPa @ 21.1°C	Approximate Ship Weight lb	kg
1A	350	1,200	8,274	152	69
1R	350	1,200	8,274	67	30
2	350	1,200	8,274	75	34
3	350	1,200	8,274	34	16
6	350	1,200	8,274	5	2
7	350	1,200	8,274	6	3
LB	170	1,200	8,274	6	3

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Metric	Equipment Recommendations	Model No.	
<b>Ethylene, Research Purity 99.999%</b>	G2250101	1A	30 lb	13.61 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Leak Detector Detector Tube	Series 3120-350 Series 3530-350 Series 3550-170 4753-350 8057 8014-108B	
<i>Guaranteed Specifications</i>	G2250118	1R	18 lb	8.16 kg			
Other Hydrocarbons <	8 ppm	G2250140	2	11 lb			4.99 kg
Nitrogen <	2 ppm	G2250150	3	4.5 lb			2.04 kg
Oxygen <	2 ppm	G2250181	7	0.31 lb			140 gm
Carbon Dioxide <	2 ppm						
Carbon Monoxide <	2 ppm						
Acetylene <	2 ppm						
Water <	3 ppm						
<i>A Certificate of Analysis is available on request at a nominal charge. Not for use as a plant growth regulator.</i>							
<b>Ethylene, Matheson Purity 99.995%</b>	G1827901	1A	30 lb	13.61 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Leak Detector Detector Tube	Series 3120-350 Series 3530-350 Series 3550-170 4753-350 8057 8014-108B	
<i>Guaranteed Specifications</i>	G1827918	1R	18 lb	8.16 kg			
Other Hydrocarbons <	40 ppm	G1827940	2	11 lb			4.99 kg
Nitrogen <	5 ppm	G1827950	3	4.5 lb			2.04 kg
Oxygen <	2 ppm	G1827981	7	0.31 lb			140 gm
Carbon Dioxide <	5 ppm						
Carbon Monoxide <	2 ppm						
Acetylene <	4 ppm						
Water <	5 ppm						
<i>A Certificate of Analysis is available on request at a nominal charge. Not for use as a plant growth regulator.</i>							
<b>Ethylene, Ultra High Purity 99.95%</b>	G1920801	1A	30 lb	13.61 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Leak Detector Detector Tube	Series 3120-350 Series 3530-350 Series 3550-170 4753-350 8057 8014-108B	
<i>Guaranteed Specifications</i>	G1920818	1R	18 lb	8.16 kg			
Other Hydrocarbons <	400 ppm	G1920840	2	11 lb			4.99 kg
Nitrogen <	50 ppm	G1920850	3	4.5 lb			2.04 kg
Oxygen <	10 ppm	G1920875	LB	0.25 lb			113 gm
Carbon Dioxide <	10 ppm						
Carbon Monoxide <	3 ppm						
Acetylene <	6 ppm						
Water <	5 ppm						
<i>A Certificate of Analysis is available on request at a nominal charge. Not for use as a plant growth regulator.</i>							



# Ethylene (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.
			US	Metric		
<b>Ethylene, Polymer Purity 99.9%</b>	G1358401	1A	30 lb	13.61 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Leak Detector Detector Tube	Series 3120-350 Series 3530-350 Series 3550-170 4753-350 8057 8014-108B
<i>Guaranteed Specifications</i>	G1358440	2	11 lb	4.99 kg		
Other Hydrocarbons < 800 ppm	G1358450	3	4.5 lb	2.04 kg		
Nitrogen < 100 ppm	G1358475	LB	0.25 lb	113 gm		
Oxygen < 20 ppm						
Carbon Dioxide < 10 ppm						
Carbon Monoxide < 3 ppm						
Acetylene < 8 ppm						
Water < 5 ppm						
<i>A Certificate of Conformance will be provided upon request. A lot analysis is available at a nominal charge. Not for use as a plant growth regulator.</i>						
<b>Ethylene, CP Grade 99.5%</b>	G1358201	1A	30 lb	13.61 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Leak Detector Detector Tube	Series 1250-350 Series 3530-350 Series 3550-170 4753-350 8057 8014-108B
	G1358240	2	11 lb	4.99 kg		
	G1358250	3	4.5 lb	2.04 kg		
	G1358275	LB	0.25 lb	113 gm		
<i>A Certificate of Conformance will be provided on request. Not for use as a plant growth regulator.</i>						

**⚠WARNING:** This product can expose you to chemicals including Carbon Monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).