



Ethylene

Description

Synonym: Ethene
Formula: C₂H₄

Gas Data

Molecular Weight: 28.05
Density: 1.26 kg/m³ @ 0°C, 101.325 kPa
0.0787 lb/ft³ @ 32°F, 14.696 psia
Specific Volume: 0.793 m³/kg @ 0°C, 101.325 kPa
12.7 ft³/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.	Page No.
Ethylene, Research Purity 99.999%	G2250101	1A	30 lb	13.61 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Personal Monitor Leak Detector Detector Tube	Series 3120-350	299
<i>Typical Analysis (mol/mol units)</i>	G2250118	1R	18 lb	8.16 kg		Series 3530-350	313
Acetylene < 2 ppm	G2250140	2	11 lb	4.99 kg		Series 3550-170	314
Carbon Dioxide < 2 ppm	G2250150	3	4.5 lb	2.04 kg		4753-350	423
Carbon Monoxide < 2 ppm	G2250178	6	0.62 lb	280 gm		IQ250	398
Nitrogen < 2 ppm	G2250181	7	0.31 lb	140 gm		8057	402
Oxygen < 2 ppm						8014-108B	391
Other Hydrocarbons < 8 ppm							
Water < 3 ppm							
<i>A Certificate of Analysis is available on request at a nominal charge. Analysis for sulfurs, alcohols and hydrides can be done on a custom basis. Please inquire for more information. Not for use as a plant growth regulator.</i>							
Ethylene, Matheson Purity 99.995%	G1827901	1A	30 lb	13.61 kg	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Personal Monitor Leak Detector Detector Tube	Series 3120-350	299
<i>Typical Analysis (mol/mol units)</i>	G1827918	1R	18 lb	8.16 kg		Series 3530-350	313
Acetylene < 4 ppm	G1827940	2	11 lb	4.99 kg		Series 3550-170	314
Carbon Dioxide < 5 ppm	G1827950	3	4.5 lb	2.04 kg		4753-350	423
Carbon Monoxide < 2 ppm	G1827978	6	0.62 lb	280 gm		IQ250	398
Nitrogen < 5 ppm	G1827981	7	0.31 lb	140 gm		8057	402
Oxygen < 2 ppm						8014-108B	391
Other Hydrocarbons < 80 ppm							
Water < 3 ppm							
<i>A Certificate of Analysis is available on request at a nominal charge. Analysis for sulfurs, alcohols and hydrides can be done on a custom basis. Please inquire for more information. Not for use as a plant growth regulator.</i>							



Ethylene (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.	Page No.
Ethylene, Ultra High Purity 99.95%	G1920801	1A	30 lb	13.61 kg	Dual Stage Reg.	Series 3120-350	299
<i>Typical Analysis</i>	G1920818	1R	18 lb	8.16 kg	Single Stage Reg.	Series 3530-350	313
Carbon Dioxide < 10 ppm	G1920840	2	11 lb	4.99 kg	LB Regulator	Series 3550-170	314
Ethane < 300 ppm	G1920850	3	4.5 lb	2.04 kg	Tee Purge	4753-350	423
Oxygen < 10 ppm	G1920878	6	0.62 lb	280 gm	Personal Monitor	IQ250	398
Propane < 10 ppm	G1920881	7	0.31 lb	140 gm	Leak Detector	8057	402
Propylene < 50 ppm	G1920875	LB	0.25 lb	113 gm	Detector Tube	8014-108B	391
Water < 5 ppm							
<i>A lot analysis will be provided with each cylinder. Please inquire for individual cylinder analysis.</i>							
<i>Analysis for sulfurs, alcohols and hydrides can be done on a custom basis. Please inquire for more information.</i>							
<i>Not for use as a plant growth regulator.</i>							
Ethylene, Polymer Purity 99.9%	G1358401	1A	30 lb	13.61 kg	Dual Stage Reg.	Series 3120-350	299
<i>Typical Analysis</i>	G1358440	2	11 lb	4.99 kg	Single Stage Reg.	Series 3530-350	313
Oxygen < 10 ppm	G1358450	3	4.5 lb	2.04 kg	LB Regulator	Series 3550-170	302
Water < 5 ppm	G1358475	LB	0.25 lb	113 gm	Tee Purge	4753-350	423
					Personal Monitor	IQ250	398
					Leak Detector	8057	402
					Detector Tube	8014-108B	391
<i>A Certificate of Conformance will be provided upon request.</i>							
<i>A lot analysis is available at a nominal charge.</i>							
<i>Not for use as a plant growth regulator.</i>							
Ethylene, CP Grade 99.5%	G1358201	1A	30 lb	13.61 kg	Dual Stage Reg.	Series 1250-350	296
	G1358240	2	11 lb	4.99 kg	Single Stage Reg.	Series 3530-350	313
	G1358250	3	4.5 lb	2.04 kg	LB Regulator	Series 3550-170	314
	G1358275	LB	0.25 lb	113 gm	Tee Purge	4753-350	423
					Personal Monitor	IQ250	398
					Leak Detector	8057	402
					Detector Tube	8014-108B	391
<i>A Certificate of Conformance will be provided on request.</i>							
<i>Not for use as a plant growth regulator.</i>							
Ethylene, Technical Purity 98%	G1358101	1A	30 lb	13.61 kg	Dual Stage Reg.	Series 81-350	293
	G1358140	2	11 lb	4.99 kg	Single Stage Reg.	Series 18-350	292
	G1358175	LB	0.25 lb	113 gm	LB Regulator	Series 3550-170	302
					Tee Purge	4753-350	423
					Personal Monitor	IQ250	398
					Leak Detector	8057	402
					Detector Tube	8014-108B	391
<i>A Certificate of Conformance will be provided on request.</i>							
<i>Not for use as a plant growth regulator.</i>							