



# Propylene

## Description

Synonym: Propene  
Formula: C<sub>3</sub>H<sub>6</sub>

## Gas Data

Molecular Weight: 42.08  
Density: 1.7692 kg/m<sup>3</sup> @ 21.1°C, 101.325 kPa  
0.11045 lbs/ft<sup>3</sup> @ 70°F, 14.696 psia  
Specific Volume: 0.56523 m<sup>3</sup>/kg @ 21.1°C, 101.325 kPa  
9.0539 ft<sup>3</sup>/lbs @ 70°F, 14.696 psia

## Safety Information

LFL in Air: 2%  
UFL in Air: 11%

## Shipping Information

CAS Registry Number: 115-07-1  
UN Number: UN 1077  
ECCN Number: 1C982  
DOT Proper Shipping Name: Propylene  
DOT Classification: 2.1 (Flammable Gas)  
DOT Label: FLAMMABLE GAS  
TC Shipping Name: Propylene  
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
1F	510	136	938	187	85
1A	510	136	938	167	76
2	510	136	938	87	39
3	510	136	938	44	20
4	510	136	938	24	11
6	510	136	938	20	9
7	510	136	938	6	3
LB	170	136	938	6	3

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.		
<b>Propylene, Research Purity 99.99%</b>	G2292106	1F	105 lb	47.63 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench	Series 3530-510 Series 3550-180 4753-510 8014-185S TW-4		
<i>Typical Analysis (mol/mol units)</i>	G2292101	1A	35 lb	15.88 kg				
<i>Liquid Phase Analysis</i>	G2292140	2	13 lb	5.90 kg				
Carbon Dioxide < 1 ppm	G2292150	3	5 lb	2.27 kg				
Nitrogen < 5 ppm	G2292165	4	2 lb	0.91 kg				
Oxygen < 1 ppm	G2292178	6	0.88 lb	400 gm				
Other Hydrocarbons < 90 ppm	G2292181	7	0.39 lb	175 gm				
Water < 2 ppm								
<i>A Certificate of Analysis is available on request at a nominal charge.</i>								
<i>Analysis for sulfurs, alcohols and hydrides can be done on a custom basis. Please inquire for more information.</i>								
<b>Propylene, Matheson Purity 99.95%</b>	G1887006	1F	105 lb	47.63 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench	Series 3530-510 Series 3550-180 4753-510 8014-185S TW-4		
<i>Typical Analysis (mol/mol units)</i>	G1887001	1A	35 lb	15.88 kg				
<i>Liquid Phase Analysis</i>	G1887040	2	13 lb	5.90 kg				
Carbon Dioxide < 2 ppm	G1887050	3	5 lb	2.27 kg				
Nitrogen < 10 ppm	G1887065	4	2 lb	0.91 kg				
Oxygen < 2 ppm	G1887078	6	0.88 lb	400 gm				
Other Hydrocarbons < 470 ppm	G1887081	7	0.39 lb	175 gm				
Water < 3 ppm								
<i>A Certificate of Analysis is available on request at a nominal charge.</i>								
<i>Analysis for sulfurs, alcohols and hydrides can be done on a custom basis. Please inquire for more information.</i>								
<b>Propylene, Ultra High Purity 99.9%</b>	G1981306	1F	105 lb	47.63 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench	Series 3530-510 Series 3550-180 4753-510 8014-185S TW-4*		
<i>Guaranteed Specifications (mol/mol units)</i>	G1981301	1A	35 lb	15.88 kg				
<i>Liquid Phase Analysis</i>	G1981340	2	13 lb	5.90 kg				
Carbon Dioxide < 4 ppm	G1981350	3	5 lb	2.27 kg				
Nitrogen < 20 ppm	G1981365	4	2 lb	0.91 kg				
Oxygen < 2 ppm	G1981378	6	0.88 lb	400 gm				
Other Hydrocarbons < 950 ppm	G1981381	7	0.39 lb	175 gm				
Water < 4 ppm	G1981375	LB	0.313 lb	142 gm				
<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>*Except LB</i>								



## Propylene (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.
			US	Metric		
<b>Propylene, Polymer Purity 99.5%</b>	G1393206	1F	105 lb	47.63 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench	Series 3530-510
<i>Typical Analysis</i>	G1393201	1A	35 lb	15.88 kg		Series 3550-180
Oxygen < 10 ppm	G1393240	2	13 lb	5.90 kg		4753-510
Water < 5 ppm	G1393250	3	5 lb	2.27 kg		8014-185S
	G1393265	4	2 lb	0.91 kg		TW-4*
	G1393275	LB	0.313 lb	142 gm		
<p><i>A Certificate of Conformance will be provided on request. A lot analysis is available at a nominal charge. *Except LB</i></p>						
<b>Propylene, CP Grade 99%</b>	G1393106	1F	105 lb	47.63 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench	Series 18-510
	G1393101	1A	35 lb	15.88 kg		Series 3320-180
	G1393140	2	13 lb	5.90 kg		4753-510
	G1393150	3	5 lb	2.27 kg		8014-185S
	G1393175	LB	0.313 lb	142 gm		TW-4*
<p><i>A Certificate of Conformance will be provided on request. By request, all except LB can be furnished with full length eductor tubes for liquid withdrawal. *Except LB</i></p>						