



n-Butane

Description

Synonym: Butane, Normal Butane
Formula: C₄H₁₀

Gas Data

Molecular Weight: 58.12
Density: 2.489 kg/m³ @ 21.1°C, 101.325 kPa
0.1554 lb/ft³ @ 70°F, 14.696 psia
Specific Volume: 0.4018 m³/kg @ 21.1°C, 101.325 kPa
6.435 ft³/lb @ 70°F, 14.696 psia

Safety Information

LFL in Air: 1.8%
UFL in Air: 8.4%
Permissible Exposure Limit (TLV): 1000 ppm

Shipping Information

CAS Number: 106-97-8
UN Number: UN 1011
ECCN Number: 1C982
DOT Proper Shipping Name: Butane
DOT Classification: 2.1 (Flammable Gas)
DOT Label: FLAMMABLE GAS
TC Shipping Name: Butane
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
1F	510	16	110	202	92
1A	510	16	110	172	78
2	510	16	110	90	40
3	510	16	110	45	21
4	510	16	110	24	11
6	510	16	110	20	9
7	510	16	110	6	3
LB	170	16	110	6	3

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Metric	Equipment Recommendations	Model No.	Page No.			
n-Butane, Research Purity 99.99%	G2208106	1F	120 lb	54.43 kg	Single Stage Reg. Tee Purge LB Regulator Personal Monitor Detector Tube Outlet Plug Wrench Flash Arrestor	Series 3530-510 4753-510 Series 3550-180 IQ250 8014-221SA TW-4 6103A-F	313 423 314 398 391 430 434			
<i>Typical Analysis (mol/mol units)</i>	G2208101	1A	40 lb	18.14 kg						
<i>Liquid Phase Analysis</i>	G2208140	2	16 lb	7.26 kg						
Nitrogen < 20 ppm	G2208150	3	6 lb	2.72 kg						
Oxygen < 5 ppm	G2208165	4	2 lb	0.91 kg						
Other Hydrocarbons < 90 ppm	G2208178	6	0.88 lb	400 gm						
Sulfur < 1 ppm	G2208181	7	0.44 lb	200 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>										
n-Butane, Matheson Purity 99.95%	G1813006	1F	120 lb	54.43 kg	Single Stage Reg. Tee Purge LB Regulator Personal Monitor Detector Tube Outlet Plug Wrench Flash Arrestor	Series 3530-510 4753-510 Series 3550-180 IQ250 8014-221SA TW-4 6103A-F	313 423 314 398 391 430 434			
<i>Typical Analysis (mol/mol units)</i>	G1813001	1A	40 lb	18.14 kg						
<i>Liquid Phase Analysis</i>	G1813040	2	16 lb	7.26 kg						
Nitrogen < 40 ppm	G1813050	3	6 lb	2.72 kg						
Oxygen < 10 ppm	G1813065	4	2 lb	0.91 kg						
Other Hydrocarbons < 500 ppm	G1813078	6	0.88 lb	400 gm						
Sulfur < 1 ppm	G1813081	7	0.44 lb	200 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>										
n-Butane, Ultra High Purity 99.9%	G1905006	1F	120 lb	54.43 kg	Single Stage Reg. Tee Purge LB Regulator Personal Monitor Detector Tube Outlet Plug Wrench Flash Arrestor	Series 3530-510 4753-510 Series 3550-180 IQ250 8014-221SA TW-4* 6103A-F	313 423 314 398 391 430 434			
<i>Typical Analysis (mol/mol units)</i>	G1905001	1A	40 lb	18.14 kg						
<i>Liquid Phase Analysis</i>	G1905040	2	16 lb	7.26 kg						
Nitrogen < 100 ppm	G1905050	3	6 lb	2.72 kg						
Oxygen < 20 ppm	G1905065	4	2 lb	0.91 kg						
Other Hydrocarbons < 900 ppm	G1905078	6	0.88 lb	400 gm						
Sulfur < 1 ppm	G1905081	7	0.44 lb	200 gm						
Water < 4 ppm	G1905075	LB	0.375 lb	170 gm						
<i>A lot analysis will be provided with each order. Please inquire for individual cylinder analysis.</i>										
<i>*Except LB</i>										



n-Butane (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	US	Content Metric	Equipment Recommendations	Model No.	Page No.
n-Butane, Instrument Purity 99.5% Air < 0.05 %	G2423106	1F	120 lb	54.43 kg	Single Stage Reg.	Series 3530-510**	313
	G2423140	2	16 lb	7.26 kg	Tee Purge	4753-510	423
	G2423150	3	6 lb	2.72 kg	LB Regulator	Series 3550-180**	314
	G2423165	4	2 lb	0.91 kg	Personal Monitor	IQ250	398
	G2423175	LB	0.375 lb	170 gm	Detector Tube	8014-221SA	391
					Outlet Plug Wrench	TW-4*	430
					Flash Arrestor	6103A-F	434
<p>LPG 5 and 10 gallon steel cylinders available with single or dual port CGA510 valves, FLET, and head pressure. Inquire. A Certificate of Conformance will be provided on request. A lot analysis is available at a nominal charge. By request, all except LB can be supplied with full length eductor tubes for liquid withdrawal. *Except LB **Regulators for gas phase only</p>							
n-Butane, CP Grade 99%	G1317206	1F	120 lb	54.43 kg	Single Stage Reg.	Series 18-510**	292
	G1317201	1A	40 lb	18.14 kg	Tee Purge	4753-510	423
	G1317240	2	16 lb	7.26 kg	LB Regulator	Series 3320-180**	302
	G1317250	3	6 lb	2.72 kg	Personal Monitor	IQ250	398
	G1317265	4	2 lb	0.91 kg	Detector Tube	8014-221SA	391
	G1317275	LB	0.375 lb	170 gm	Outlet Plug Wrench	TW-4*	430
					Flash Arrestor	6103A-F	434
<p>LPG 5 and 10 gallon steel cylinders available with single or dual port CGA510 valves, FLET, and head pressure. Inquire. Liquid phase, weight/weight% A Certificate of Conformance will be provided on request. By request, all except LB can be supplied with full length eductor tubes for liquid withdrawal. *Except LB **Regulators for gas phase only</p>							