



Isobutane

Description

Synonym: 2-Methylpropane
Formula: C₄H₁₀

Gas Data

Molecular Weight: 58.12
Density: 2.4787 kg/m³ @ 21.1°C, 101.325 kPa
0.15474 lb/ft³ @ 70°F, 14.696 psia
Specific Volume: 0.40344 m³/kg @ 21.1°C, 101.325 kPa
6.4625 ft³/lb @ 70°F, 14.696 psia

Safety Information

LFL in Air: 1.8%
UFL in Air: 8.4%

Shipping Information

CAS Registry Number: 75-28-5
UN Number: UN 1969
ECCN Number: 1C982
DOT Proper Shipping Name: Isobutane
DOT Classification: 2.1 (Flammable Gas)
DOT Label: FLAMMABLE GAS
TC Shipping Name: Isobutane
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	31	211	198	90
1A	510	31	211	167	76
2	510	31	211	89	40
3	510	31	211	44	20
4	510	31	211	24	11
6	510	31	211	21	10
7	510	31	211	6	3
LB	170	31	211	6	3

Gas Grade Purity Specifications		Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.
				US	Metric		
Isobutane, Research Purity 99.995%		G2257106	1F	116 lb	52.62 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench Flash Arrestor	Series 3530-510
<i>Typical Analysis</i>		G2257101	1A	35 lb	15.88 kg		Series 3550-170
n-Butane	< 10 ppm	G2257140	2	15 lb	6.80 kg		4753-510
1-Butene	< 2 ppm	G2257150	3	5 lb	2.27 kg		8014-113SB
2-Butene (cis)	< 1 ppm	G2257165	4	2 lb	0.91 kg		TW-4
2-Butene (trans)	< 1 ppm	G2257178	6	0.88 lb	400 gm		6103A-F
2,2-Dimethylpropane	< 1 ppm	G2257181	7	0.44 lb	200 gm		
Ethane	< 2 ppm						
Ethylene	< 1 ppm						
Isobutylene	< 10 ppm						
Isopentane	< 1 ppm						
Methane	< 1 ppm						
Nitrogen	< 5 ppm						
Oxygen	< 2 ppm						
n-Pentane	< 1 ppm						
Propane	< 10 ppm						
Propylene	< 1 ppm						
Sulfur	< 1 ppm						
Water	< 1 ppm						

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.



Isobutane (continued)

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.		
Isobutane, Matheson Purity 99.985%	G1852606	1F	116 lb	52.62 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench Flash Arrestor	Series 3530-510 Series 3550-170 4753-510 8014-113SB TW-4 6103A-F		
<i>Typical Analysis</i>	G1852601	1A	35 lb	15.88 kg				
n-Butane < 25 ppm	G1852640	2	15 lb	6.80 kg				
1-Butene < 25 ppm	G1852650	3	5 lb	2.27 kg				
2,2-Dimethylpropane < 2 ppm	G1852665	4	2 lb	0.91 kg				
Ethane < 3 ppm	G1852678	6	0.88 lb	400 gm				
Ethylene < 2 ppm	G1852681	7	0.44 lb	200 gm				
Isobutylene < 15 ppm								
Isopentane < 2 ppm								
Methane < 2 ppm								
Nitrogen < 35 ppm								
Oxygen < 8 ppm								
n-Pentane < 5 ppm								
Propane < 15 ppm								
Propylene < 3 ppm								
Sulfur < 1 ppm								
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>								
Isobutane, Ultra High Purity 99.91%	G1931106	1F	116 lb	52.62 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench Flash Arrestor	Series 3530-510 Series 3550-170 4753-510 8014-113SB TW-4* 6103A-F		
<i>Typical Analysis</i>	G1931101	1A	35 lb	15.88 kg				
n-Butane < 340 ppm	G1931140	2	15 lb	6.80 kg				
Ethane < 5 ppm	G1931150	3	5 lb	2.27 kg				
Methane < 2 ppm	G1931165	4	2 lb	0.91 kg				
n-Pentane < 8 ppm	G1931178	6	0.88 lb	400 gm				
Propane < 5 ppm	G1931181	7	0.44 lb	200 gm				
Propylene < 5 ppm	G1931175	LB	0.375 lb	170 gm				
Water < 3 ppm								
<i>A lot analysis is available upon request. 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>								
Isobutane, Instrument Purity 99.5%	G2457106	1F	116 lb	52.62 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench Flash Arrestor	Series 3530-510 Series 3550-170 4753-510 8014-113SB TW-4* 6103A-F		
<i>Guaranteed Specifications</i>	G2457101	1A	35 lb	15.88 kg				
Air < 0.05 %	G2457140	2	15 lb	6.80 kg				
	G2457150	3	5 lb	2.27 kg				
	G2457165	4	2 lb	0.91 kg				
	G2457178	6	0.88 lb	400 gm				
	G2457181	7	0.44 lb	200 gm				
	G2457175	LB	0.375 lb	170 gm				
<i>LPG 5 and 10 gallon steel cylinders available with single or dual port CGA510 valves, FLET, and head pressure. Inquire.</i>								
<i>Liquid phase, weight/weight%</i>								
<i>A Certificate of Conformance will be provided on request.</i>								
<i>A lot analysis is available at a nominal charge.</i>								
<i>*Except LB</i>								
Isobutane, CP Grade 99%	G1363106	1F	116 lb	52.62 kg	Single Stage Reg. LB Regulator Tee Purge Detector Tube Outlet Plug Wrench Flash Arrestor	Series 18-510 Series 3320-170 4753-510 8014-113SB TW-4* 6103A-F		
	G1363101	1A	35 lb	15.88 kg				
	G1363140	2	15 lb	6.80 kg				
	G1363150	3	5 lb	2.27 kg				
	G1363165	4	2 lb	0.91 kg				
	G1363175	LB	0.375 lb	170 gm				
<i>LPG 5 and 10 gallon steel cylinders available with single or dual port CGA510 valves, FLET, and head pressure. Inquire.</i>								
<i>Liquid phase, weight/weight%</i>								
<i>A Certificate of Conformance will be provided on request.</i>								
<i>By request, all except LB can be furnished with full length eductor tubes for liquid withdrawal.</i>								
<i>For liquids, use manual control only.</i>								
<i>*Except LB</i>								