



Deuterium

Description

Synonym: Heavy Hydrogen
Formula: D₂

Gas Data

Molecular Weight: 4.03
Density: 0.167 kg/m³ @ 21.1°C, 101.325 kPa
0.0104 lb/ft³ @ 70°F, 14.696 psia
Specific Volume: 5.99 m³/kg @ 21.1°C, 101.325 kPa
95.9 ft³/lb @ 70°F, 14.696 psia

Shipping Information

CAS Registry Number: 7782-39-0
UN Number: UN 1957
ECCN Number: 0C004
DOT Proper Shipping Name: Deuterium, Compressed
DOT Classification: 2.1 (Flammable Gas)
DOT Label: FLAMMABLE GAS
TC Shipping Name: Deuterium, 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
1L	350	2,500	17,236	147	67
1A	350	1,760	12,135	134	61
1R	350	1,760	12,135	55	25
2	350	890	6,136	75	34
3	350	1,090	7,515	39	18
4	350	630	4,344	22	10
LBA	170	1,740	11,997	6	3
LBB	170	685	4,723	6	3

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.		
			US	Metric				
Deuterium, Research Grade 99.999%* Isotopic Enrichment 99.8% <i>Impurities</i> Carbon Dioxide < 2 ppm Carbon Monoxide < 1 ppm Deuterium Hydride (HD) < 5000 ppm Hydrogen < 150 ppm Nitrogen < 5 ppm Oxygen < 1 ppm Total Hydrocarbons < 1 ppm Water/Deuterated Water < 5 ppm <i>*Chemical purity excludes H₂ and HD</i>	G2671530	1L	251 ft ³	7100 L	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Leak Detector Cyl. Valve Wrench	Series 3120-350 Series 3530-350 Series 3550-170 4753-350 8066 TW-5		
	G2688953	1A	212 ft ³	6000 L				
	G2671541	1R	124 ft ³	3500 L				
	G2671581	2	35 ft ³	1000 L				
	G2671582	3	18 ft ³	500 L				
	G2671583	4	3.53 ft ³	100 L				
	G2671584	LBA	1.77 ft ³	50 L				
	Deuterium, UHP Grade 99.995%*							
	Isotopic Enrichment 99.7%							
	<i>Impurities</i> Carbon Dioxide ≤ 4 ppm Carbon Monoxide ≤ 2 ppm Deuterium Hydride (HD) ≤ 5000 ppm Hydrogen ≤ 200 ppm Nitrogen ≤ 10 ppm Oxygen ≤ 2 ppm Total Hydrocarbons ≤ 2 ppm Water/Deuterated Water ≤ 5 ppm <i>*Chemical purity excludes H₂ and HD</i>							
	G2671550	1L	251 ft ³	7100 L	Dual Stage Reg. Single Stage Reg. LB Regulator Tee Purge Leak Detector Cyl. Valve Wrench	Series 3120-350 Series 3530-350 Series 3550-170 4753-350 8066 TW-5		
	G2671542	1A	212 ft ³	6000 L				
	G2671552	2	35 ft ³	1000 L				
	G2671578	3	18 ft ³	500 L				
	G2671579	4	3.53 ft ³	100 L				
	G2671580	LBA	1.77 ft ³	50 L				

⚠ 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.