



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		Approximate Ship Weight	
		psig @ 70°F	kPa @ 21.1°C	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.	Page 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.	Series 3120-350	299	
	G2688953	1A	212 ft ³	6000 L	Single Stage Reg.	Series 3530-350	313	
	G2671541	1R	124 ft ³	3500 L	LB Regulator	Series 3550-170	314	
	G2671581	2	35 ft ³	1000 L	Tee Purge	4753-350	423	
	G2671582	3	18 ft ³	500 L	Personal Monitor	IQ250	398	
	G2671583	4	3.53 ft ³	100 L	Leak Detector	8066	406	
	G2671584	LBA	1.77 ft ³	50 L	Cyl. Valve Wrench	TW-5	430	
	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.	Series 3120-350	299
	G2671542	1A	212 ft ³	6000 L	Single Stage Reg.	Series 3530-350	313	
	G2671552	2	35 ft ³	1000 L	LB Regulator	Series 3550-170	314	
	G2671578	3	18 ft ³	500 L	Tee Purge	4753-350	423	
G2671579	4	3.53 ft ³	100 L	Personal Monitor	IQ250	398		
G2671580	LBA	1.77 ft ³	50 L	Leak Detector	8066	406		
				Cyl. Valve Wrench	TW-5	430		

⚠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.