

Deuterium

D₂

Grade	Semicon 4N5	ULSI 5N
Purity, %	99.995	99.999
Enrichment, %	99.5	99.8
Oxygen	≤ 1.0 ppmv	≤1.0 ppmv
Nitrogen	≤5.0 ppmv	≤1.0 ppmv
Carbon Dioxide	≤2.0 ppmv	≤1.0 ppmv
Carbon Monoxide	≤1.0 ppmv	≤1.0 ppmv
THC	≤ 1.0 ppmv	≤1.0 ppmv
Water + D ₂ O	≤5.0 ppmv	≤1.0 ppmv
Hydrogen*	≤150 ppmv	≤100 ppmv
Hydrogen Deuteride*	≤5,000 ppmv	≤3,000 ppmv

*Not included in over-all purity analysis

- A lot analysis is provided for each order. – Individual analysis is also available upon request.
- Pneumatic valves and JIS connections are available upon request.

CYLINDER	Internal Volume	Liters	43.8
	Cylinder Sizes >>		QA/QF
	Content	Liters	6,000
		ft ³	212
	Cylinder Pressure**	psig	2,200
		atm	155.7

** @ NTP

SHIP	DOT Shipping Name	Deuterium Compressed	UN Number	UN 1957	Shipped as
	DOT Classification	2.1 (Flammable Gas)	ECCN #	0C004	Compressed Gas
	DOT Label	FLAMMABLE GAS	Harmonized #	2845.90.0000	

TECHNICAL DATA	Specific Volume	5.99 m ³ /kg
	@NTP	95.9 ft ³ /lb
	CAS No	7782-39-0
	CGA/DISS/JIS	350/724/W22-14L
	Molecular Weight	4.03 g/mol

Critical Temperature	-234.8°C	-390.6°F
Critical Pressure	16.9 atm	241.3 psia

NTP = 21°C or 70°F and 101.3 kPa or 1 atm

Cylinder	Treatment	Nominal Diameter (OD)xHeight*		Material of Construction	
		cm	Inches	Cylinder	Valve
QA	ULTRA-LINE®	23x130/134/143	9x51/52.5/56	CS	Brass
QF	ULTRA-LINE®	23x130/134/143	9x51/52.5/56	CS	SS

*Height is reported as the distance from the bottom of the cylinder to the cylinder neck/ center of the valve outlet/ top of the handwheel

CS: Carbon Steel SS: Stainless Steel

⚠ 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.



MATHESON

ask. . .The Gas Professionals™