

# Nitric Oxide

**NO**

Grade	Semicon 2N5	ULSI 4N
Purity, %	99.5	99.99
Oxygen		≤1 ppmv
Nitrogen	≤3,000 ppmv	≤30 ppmv
Carbon Dioxide	≤1,000 ppmv	≤1 ppmv
THC (CH <sub>4</sub> )		≤1 ppmv
Water	≤20 ppmv	≤1 ppmv
Hydrogen		≤1 ppmv
Nitrous Oxide	≤1,000 ppmv	≤30 ppmv
Nitrogen Dioxide		≤30 ppmv

- A lot analysis is provided for each order – Individual analysis is also available upon request.
- For ULSI PLUS Grade, a Metals analysis is provided upon request.

CYLINDER	Internal Volume	Liters	47.5	43.8
	<b>Cylinder Sizes &gt;&gt;</b>		<b>QZ</b>	<b>QF</b>
	Content	m <sup>3</sup>	1	1.58
		ft <sup>3</sup>	35	56
	Cylinder Pressure*	atm	20.4	36.2
psig		275	500	

\* @ NTP

SHIP	DOT Shipping Name	Nitric Oxide Compressed	UN Number	UN 1660	Shipped as
	DOT Classification	2.3 Hazard Zone A (Gas Poisonous by Inhalation)	ECCN #	EAR99	Compressed Gas
	DOT Label	INHALATION HAZARD, OXIDIZER CORROSIVE GAS	Harmonized #	2811.29.0000	

TECHNICAL DATA	Boiling Point @NTP	-89.5°C
	Triple Point	-90.8°C
	Specific Volume	0.8 m <sup>3</sup> /kg
		@NTP 12.8 ft <sup>3</sup> /lb
	CAS No	10102-43-9
	CGA/DISS/JIS	660/728/W22-14R
	Molecular Weight	30.01 g/mol
TLV	25 ppmv	

Critical Temperature	-93°C	-135.4°F
Critical Pressure	66 atm	940.6 psia

RFO Data @ 500 psig	Size, mm	0.254	0.3556	0.508	0.762	1.016
	Size, inches	0.010	0.014	0.020	0.030	0.040
	Flow, sccm	20121	38413	79265	176823	304867
	Flow, scf/h	43	81	168	375	646

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
QZ	ULTRA-LINE II®	25x137/141/149	10x54/55.5/59	Aluminum	SS
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

