Propylene

C_3H_6

Grade	Semicon 3N7	ULSI 4N	ULSI 4N5
Purity, %	99.97	99.99	99.995
Oxygen	≤2 ppmv	≤1 ppmv	≤1 ppmv
Nitrogen	≤10 ppmv	≤5 ppmv	≤2 ppmv
Carbon Dioxide	≤1 ppmv	≤1 ppmv	≤1 ppmv
Water	≤3 ppmv	≤2 ppmv	≤1 ppmv
Sulfur		≤1 ppmw	≤1 ppmw
Propane	≤260 ppmv	≤90 ppmv	≤45 ppmv
Other Hydrocarbons		≤10 ppmv	≤5 ppmv

ULSI PLUS* Metals, ppbw		
	4N	4N5
Na	≤9 ppbw	≤5 ppbw
Mg	≤1 ppbw	≤0.5 ppbw
Al	≤7 ppbw	≤5 ppbw
P	≤5 ppbw	≤2 ppbw
Cr	≤3 ppbw	≤2 ppbw
Mn	≤3 ppbw	≤2 ppbw
Fe	≤5 ppbw	≤3.5 ppbw
Ni	≤5 ppbw	≤1 ppbw
Se	≤5 ppbw	≤2 ppbw
Zn	≤5 ppbw	≤0.1 ppbw
V		≤1.5 ppbw
Co		≤0.5 ppbw
Ga		≤1.5 ppbw
Ge		≤1 ppbw
As		≤1 ppbw
Sn		≤2 ppbw
Ce		≤0.5 ppbw
Hf		≤0.2 ppbw

*ULSI PLUS is available for 4N and 4N5

- 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	454
Cylinder Sizes >>		**QF**	**XP**
Content	kg	18.2	195
	lbs	40	429
Change Point*	lbs	2.2	23.8

* @ 21°C
**Recommended Cylinder Change Point, based on Phase Break, or the amount of product left in the cylinder when the liquid phase has completely evaporated and only gaseous product is left (estimate based on ideal gas behavior).

SHIP

DOT Shipping Name	Propylene	UN Number	UN 1077	Shipped as
DOT Classification	2.1 (Flammable Gas)	ECCN #	NPR-EAR99	Liquefied
DOT Label	FLAMMABLE GAS	Harmonized #	2901-22-0000	Gas

TECHNICAL DATA

Cylinder Pressure	136.6 psig
@NTP	10.6 atm
Specific Volume	0.587 m^3/kg
@NTP	9.4 ft^3/lb
CAS No	115-07-1
CGA/DISS/JIS	510*/724/22-14L
Molecular Weight	42.08 g/mol

*Brass Valve

Critical Temperature	91.8°C	197.2°F
Critical Pressure	45.6 atm	648.6 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
QF	ULTRA-LINE®	23x130/134/143	9x51/52.5/56	CS	SS
XP	ULTRA-LINE®	75.2x128/146	29.6x50.4/57.5**	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
**Height is reported as the distance from the bottom of the cylinder to the cylinder neck/ top of the cylinder collar