Tungsten Hexafluoride

WF_6

Grade	ULSI Plus 4N8/6N5	Gigabit 5N5/7N
Vapor Phase Purity, %	99.998	99.9995
Oxygen + Argon	≤1.0 ppmv	≤0.5 ppmv
Nitrogen	≤1.0 ppmv	≤0.5 ppmv
Carbon Dioxide	≤1.0 ppmv	≤0.5 ppmv
Carbon Monoxide	≤1.0 ppmv	≤0.5 ppmv
Carbon Tetrafluoride	≤1.0 ppmv	≤0.5 ppmv
Hydrogen Fluoride	≤10 ppmv	≤1.0 ppmv
Sulfur Hexafluoride	≤0.5 ppmv	≤0.5 ppmv
Silicon Tetrafluoride	≤0.5 ppmv	≤0.5 ppmv
Liquid Phase Purity, %(w)	99.99995	99.99999
Total Metals:	≤500 ppbw	≤100 ppbw
Individual Metals - Cr	≤10 ppbw	≤5 ppbw
Fe	≤10 ppbw	≤5 ppbw
K	≤10 ppbw	≤5 ppbw
Na	≤10 ppbw	≤5 ppbw
Th	≤0.1 ppbw	≤0.08 ppbw
U	≤0.05 ppbw	≤0.05 ppbw

- A lot analysis is provided for metals, sampled in the liquid phase
- Individual cylinder analysis is provided for gas impurities.
- Pneumatic valves are available for a Nickel DISS 638 connection – Stainless Steel is not available
- WF_6 supplied in Nickel /Nickel-lined cylinders and Nickel valves to maintain the guaranteed purity.

CYLINDER

Internal Volume	Liters	22.6	20.5	8.0	4.2
Cylinder Sizes >>		**QW**	**QM**	**GH**	**JD**
Content	kg	59	59	20	10
	lbs	130	130	44	22
Change Point*	lbs	0.8	0.7	0.3	0.1

*Recommended Cylinder Change Point at NTP, 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	Tungsten Hexafluoride	UN Number	UN 2196	Shipped as
DOT Classification	2.3 (Poison Gas)	ECCN #	EAR99	Liquefied
DOT Label	POISON GAS CORROSIVE	Harmonized #	2826.19.0080	Gas

TECHNICAL DATA

Cylinder Pressure @NTP	2.6 psig 1.2 atm
Specific Volume @NTP	0.081 m^3/kg 1.3 ft^3/lb
CAS No	7783-82-6
CGA/DISS	670/638
Molecular Weight	297.84 g/mol

Vapor Pressure	Temp, °C	0.0	15.5	21.0	32.2	43.3
	Press, psig	-8.0	0.0	2.6	15.6	31.7
	Temp, °F	32	60	70	90	110

RFO Data	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	234	447	922	2057	3547
	Flow, scf/h	0.5	0.9	2.0	4.4	7.5

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

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