



Tungsten Hexafluoride

Description

Formula: WF₆

Gas Data

Molecular Weight 297.84
Specific Volume: 0.077 m³/kg @ 21.1°C, 101.325 kPa
1.24ft³/lb @ 70°F, 14.696 psia

Shipping Information

CAS Registry Number: 7783-82-6
UN Number: UN 2196
DOT Proper Shipping Name: Tungsten Hexafluoride
DOT Classification: 2.3 (Poison Gas)
DOT Label: POISON GAS, CORROSIVE
TC Shipping Name: Tungsten Hexafluoride
TC Classification: 2.3
TC Label: POISON GAS

Cylinder Specifications

Cylinder Size	Valve Outlet	Pressure psig @ 70°F	Pressure kPa @ 21.1°C
QM	638	2.6	17.9
QM	670	2.6	17.9
GH	638	2.6	17.9
GH	670	2.6	17.9
JD	638	2.6	17.9
JD	670	2.6	17.9
WA	638	2.6	17.9
WA	670	2.6	17.9

Gas Grade Purity Specifications

Tungsten Hexafluoride Gigabit

5N Purity (Vapor Phase)

Guaranteed Specifications	ppmv max.	Metals Specification	ppbw max.
Nitrogen	0.5	Chromium	5.0
Oxygen + Argon	0.5	Iron	5.0
Carbon Monoxide	0.5	Potassium	5.0
Carbon Dioxide	0.5	Sodium	5.0
Carbon Tetrafluoride	0.5	Thorium	0.08
Hydrogen Fluoride	5.0	Uranium	0.05
Silicon Tetrafluoride	0.5	Total Metals	100.0
Sulfur Hexafluoride	0.5		

Additional Elements analyzed are:

Al, Sb, As, Ba, Be, Bi, B, Br, Cd, Ca, Cs, Co, Cu, Ga, Ge, Hf, I, Ir, La, Pb, Li, Mg, Mn, Mo, Ni, Os, Pd, Pt, Rb, Ru, Se, Ag, Sr, Te, Sn, Ti, V, Y, and Zn.

Tungsten Hexafluoride ULSI Plus

4N8 Purity (Vapor Phase)

Guaranteed Specifications	ppmv max.	Metals Specification	ppbw max.
Nitrogen	1.0	Chromium	10.0
Oxygen + Argon	1.0	Iron	10.0
Carbon Monoxide	1.0	Potassium	10.0
Carbon Dioxide	1.0	Sodium	10.0
Carbon Tetrafluoride	1.0	Thorium	0.10
Hydrogen Fluoride	10.0	Uranium	0.05
Silicon Tetrafluoride	0.5	Total Metals	500.0
Sulfur Hexafluoride	0.5		

Additional Elements analyzed are:

Al, Sb, As, Ba, Be, Bi, B, Br, Cd, Ca, Cs, Co, Cu, Ga, Ge, Hf, I, Ir, La, Pb, Li, Mg, Mn, Mo, Ni, Os, Pd, Pt, Rb, Ru, Se, Ag, Sr, Te, Sn, Ti, V, Y, and Zn.

Tungsten Hexafluoride Semiconductor

3N8 Purity (Vapor Phase)

Guaranteed Specifications	ppmv max.	Metals Specification	ppbw max.
Carbon Dioxide	10.0	Total Metals	1000.0
Carbon Monoxide	10.0		
Carbon Tetrafluoride	10.0		
Hydrogen Fluoride	100.0		
Nitrogen	20.0		
Oxygen + Argon	10.0		
Sulfur Hexafluoride	10.0		
Silicon Tetrafluoride	10.0		

Additional Elements analyzed are:

Al, Sb, As, Ba, Be, Bi, B, Br, Cd, Ca, Cs, Cr, Co, Cu, Ga, Ge, Hf, I, Ir, Fe, La, Pb, Li, Mg, Mn, Mo, Ni, Os, Pd, Pt, K, Rb, Ru, Se, Ag, Na, Sr, Te, Th, Sn, Ti, V, U, Y, and Zn.

Pneumatic Valves are available only for a Nickel DISS 638 connection. Stainless steel is not available.

A lot analysis is provided for liquid metals is provided and an individual analysis for gas impurities is also provided.

WF₆ is supplied in ULTRA-LINE® nickel cylinders and valves to maintain product purity.

Product Code	Cylinder Size	Content US	Content Metric	Cylinder Connection
G1699805DN	QM	110 lb	50.00 kg	DISS 638
G1699805	QM	110 lb	50.00 kg	CGA 670
G1699842DN	GH	44 lb	20.00 kg	DISS 638
G1699842	GH	44 lb	20.00 kg	CGA 670
G1699870DN	JD	22 lb	10.00 kg	DISS 638
G1699870	JD	22 lb	10.00 kg	CGA 670
G1699874DN	WA	6.6 lb	3.00 kg	DISS 638
G1699874	WA	6.6 lb	3.00 kg	CGA 670
G1699705DN	QM	110 lb	50.00 kg	DISS 638
G1699705	QM	110 lb	50.00 kg	CGA 670
G1699742DN	GH	44 lb	20.00 kg	DISS 638
G1699742	GH	44 lb	20.00 kg	CGA 670
G1699770DN	JD	22 lb	10.00 kg	DISS 638
G1699770	JD	22 lb	10.00 kg	CGA 670
G1699774DN	WA	6.6 lb	3.00 kg	DISS 638
G1699774	WA	6.6 lb	3.00 kg	CGA 670
G1699605DN	QM	110 lb	50.00 kg	DISS 638
G1699605	QM	110 lb	50.00 kg	CGA 670
G1699642DN	GH	44 lb	20.00 kg	DISS 638
G1699642	GH	44 lb	20.00 kg	CGA 670
G1699670DN	JD	22 lb	10.00 kg	DISS 638
G1699670	JD	22 lb	10.00 kg	CGA 670
G1699674DN	WA	6.6 lb	3.00 kg	DISS 638
G1699674	WA	6.6 lb	3.00 kg	CGA 670