

# Boron Trifluoride BF<sub>3</sub>

Synonym: Boron Fluoride

### Physical Constants of Gas

Molecular Weight ..... 67.81  
 Specific Volume ..... 5.6 CF/lb. (0.35 m<sup>3</sup>/kg)  
 Boiling Point ..... -147.8°F (-99.9°C) 1 atm  
 Gas Density 70°F 1 atm ..... 3.072 kg/m<sup>3</sup>

### Cylinder Data

CGA Valve Outlet ..... 330, 642

### Shipping Data

Shipping Class ..... 175  
 DOT/TC Name ..... Boron Trifluoride, Compressed  
 DOT Class ... 2.3 (Poisonous Gas) Hazard Zone B  
 TC Class ..... 2.3 (8) Toxic Gas (Corrosive)  
 WHMIS Class ..... AD1AE  
 DOT Label ..... Poison Gas  
 CAS Registry No. .... 7637-07-2  
 UN No./ATA No. .... UN1008

### Safety Information

Poisonous, corrosive, high-pressure gas.  
 Can cause eye, skin and respiratory tract burns.  
 May cause kidney damage.  
 May be fatal if inhaled.

Specifications									Recommended Equipment	
Grade	Purity (Minimum)	Size	Contents		Pressure		Weight		Description Model Number	Page
			lbs.	kg	psig	bar	lbs.	kg		
Electronic Grade 2 N <sub>2</sub> < 15 ppm O <sub>2</sub> < 5 ppm SiF <sub>4</sub> < 50 ppm SO <sub>2</sub> < 25 ppm	99.99%	16	7	3	1000	69	72	33	Application Dependent – Please Inquire	—
		7	3	1	1000	69	31	14		
		3	1	0.6	1000	69	12	6		
Electronic Grade 2 Boron 11 Enriched Ar < 25 ppm CO <sub>2</sub> < 25 ppm HF < 25 ppm N <sub>2</sub> < 25 ppm O <sub>2</sub> < 25 ppm SO <sub>2</sub> < 25ppm Boron 11 Enrichment (Atomic %) > 99%	99.5%	3	1	0.6	1000	69	12	6	Application Dependent – Please Inquire	—
		LBX	0.3	0.1	900	62	4	2		
Electronic Grade 1 N <sub>2</sub> < 3200 ppm O <sub>2</sub> < 800 ppm SiF <sub>4</sub> < 300 ppm SO <sub>2</sub> < 25 ppm	99.5%	16	7	3	1000	69	72	33	Application Dependent – Please Inquire	—
		7	3	1	1000	69	31	14		
		3	1	0.6	1000	69	12	6		
Electronic Grade 1 Boron 11 Enriched N <sub>2</sub> + O <sub>2</sub> + SiF <sub>4</sub> < 1000 ppm Boron 11 Enrichment (Atomic %) > 95%	99.5%	3	1	0.6	1000	69	12	6	Application Dependent – Please Inquire	—
		LBX	0.3	0.1	900	62	4	2		

We stock SCOTT™ regulators, manifolds, flowmeters, point-of-use panels, cabinets, valves and related equipment.