

Technical Data Sheet
Amorphous Boron Powder
MIL-B-51092

PRODUCT INFORMATION

CAS Number: 7440-42-8
Melting Point: ~2200 °C
Density: 2.350
EINEC Number: 2311512
Molecular Weight: 10.8
Molecular Formula: B
Water Solubility: Insoluble

TYPICAL CHEMICAL ANALYSIS

Catalog No.:	MIL-B-51092	MIL-B-51092
Total Boron:	95-97%	90-92%
Water Soluble Boron:	0.2% Max.	0.5% Max.
H ₂ O ₂ Insoluble:	1.0% Max.	1.0% Max.
Moisture:	0.5% Max.	0.5% Max.
Oxygen:	2.2% Max.	4.5% Max.
Nitrogen:	0.4% Max.	0.3% Max.
Magnesium:	0.8% Max.	6.0% Max.
Average Particle Size*:	1.0 µ Max.*	0.8 µ Max.*
Specific Surface Area:	10.0 m ² /g	18.0 m ² /g



Boron is used as an oxygen scavenger for copper and other metals. It is used in manufacturing alloys usually to harden other metals. In nuclear chemistry, boron is used as a neutron absorber. In pyrotechnic chemistry, boron is used in ignition formulations, rocket-propellant mixtures, and other burn control formulations.

