

Safety Data Sheet

Section 1. Product and Company Identification

Product Identification: 5,000 µg/mL Boron in Water
SDS Number: 5M7-4
Recommended use: For Laboratory Use
Company Identification: High-Purity Standards
P.O. Box 41727
Charleston, SC 29423
Telephone: (843) 767-7900
FAX: (843) 767-7906

In case of emergency call INFOTRAC: 800-535-5053

Section 2. Hazard Identification

Classification:

None

Labeling:

Symbol: None

Signal word: None

Hazard statement: None

Precautionary statement: None

Section 3. Chemical Composition

Component	CAS/EINECS Registry #	Percent Concentration
Boric Acid (H ₃ BO ₃)	10043-35-3/233-139-2	0.5 (as B)
Water, deionized	7732-18-5/231-791-2	Balance

Section 4. First Aid Measures

Emergency Overview: May cause irritation. Wash areas of contact with water.

Skin/eye Contact: May cause slight irritation. Remove contaminated shoes and clothing. Flush contaminated area with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Not likely to be hazardous by inhalation.

Ingestion: May cause irritation to stomach if ingested in large quantities. Rinse mouth with water. Dilute with water or milk.

Section 5. Fire Fighting Measures

Fire & Explosion hazards: Not considered to be a fire or explosion hazard.

Extinguishing Media: Use any extinguishing media that is suitable for the surrounding area.

Specific Methods: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Section 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Do not allow to enter drainage systems or water ways. Always dispose of in accordance with local regulations.

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Section 7. Handling and Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Keep container tightly sealed. Refer to Section 8 for personal handling instructions.

Section 8. Exposure Controls and Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Personal Protection: Wear proper gloves, safety glasses with side shields, lab coat/apron.

Exposure Limits:

Component	ACGIH TLV	OSHA PEL
Boric Acid	Not Available	Not Available

Section 9. Physical and Chemical Properties

Physical state: Liquid

Color: Clear, colorless liquid

Odor: Odorless

Odor threshold: None

pH: 5-8

Melting point: N/A

Freezing Point: N/A

Boiling Point: ~100°C

Flash point: N/A

Evaporation rate: N/A

Flammability: N/A

Explosion limits: N/A

Vapor Pressure (mm): N/A

Vapor Density (air+1): N/A

Relative density: (H₂O = 1): Approximately 1.0

Solubility in H₂O: Complete

Auto ignition temperature: N/A

Decomposition temperature: N/A

Molecular Weight: 10.81 (B)

Section 10. Stability and Reactivity

Stability Indicator: YES

Conditions to Avoid: Incompatibles

Incompatibles: Organic materials, strong alkali, hydroxides, cyanides.

Hazardous Decomposition Products: None expected.

Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

H₃BO₃-RTECS# ED4550000

Toxicity Data:

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LD₅₀ Oral, Rat: (H₃BO₃) 2660 mg/kg; LD_{LO}, Oral, Woman: (H₃BO₃) 400 mg/kg, behavioral and gastrointestinal effects noted.

Section 12. Ecological Information

Ecotoxicological information: Harmful to boron-sensitive plants in higher quantities, although boron is an essential micronutrient for plants. Boric acid decomposes in the environment to natural borate, which is leachable through normal soil.

Section 13. Disposal Considerations

General: Dilute with water and flush to the sewer system if local regulations allow. If not allowed, contain for proper disposal at an approved waste disposal facility. Follow federal, state and local regulations for waste.

Section 14. Transport Information

D.O.T. Classification: Not hazardous by DOT.

Section 15. Regulations (Not meant to be all inclusive-selected regulation listed)

TSCA Status: The components of this solution are listed on the TSCA Inventory.

RCRA Status: No.

SARA: No.

Risk Phrases: R 21/22 Harmful by skin contact or if swallowed.

Safety Phrases: S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WHMIS Information (Canada): Not applicable.

Section 16. Other Information

HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The SDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the SDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.