



# SAFETY DATA SHEET

## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Boric Acid, Crystalline

PRODUCT NUMBER: B210

COMPANY INFO: *PhytoTechnology Laboratories®*  
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EMERGENCY PHONE NUMBER 1-800-535-5053 - US Only  
(INFOTRAC): 1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories®* are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture:

GHS Classification:

- H301 – Acute toxicity, Oral (Category 3)
- H315 – Skin irritation (Category 2)
- H319 – Eye Irritation (Category 2A)
- H400 – Acute aquatic toxicity (Category 1)
- H410 – Chronic aquatic toxicity (Category 1)

### GHS Label elements, including hazard and precautionary statements:

Pictogram



Signal Word: **Warning**

Hazard Statements:

- H301 – Toxic if swallowed.
- H315 – Causes skin irritation.
- H319 – Causes serious eye irritation.
- H410 – Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

- P273 – Avoid release to the environment.
- P280 – Wear protective gloves/protective clothing/eye protection/face protection.
- P302 + P352 + IF ON SKIN: Wash with plenty of soap and water
- P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazards not otherwise classified (HNOC) or not covered by GHS: - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No: 10043-35-3

Formula:  $\text{H}_3\text{BO}_3$

Molecular Weight: 61.83 g/mol

EC No.: 233-139-2

Ingredient	CAS Number	Percent	Hazardous
Boric Acid	10043-35-3	>99.5 %	No exposure limits established by OSHA or ACGIH

#### 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. <b>Get medical attention.</b>
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. <b>Get medical attention.</b>
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. <b>Get medical attention if irritation persists.</b>
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. <b>Get medical attention if irritation persists.</b>

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

#### 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Method of Containment and Cleanup:	Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let product enter drains.

#### 7. HANDLING AND STORAGE

Precaution for Safe Handling:	Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Provide adequate ventilation at places where dust is formed. Wash thoroughly after use.
Conditions for Safe Storage:	Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Product is hygroscopic.
Incompatibilities:	Potassium, acid anhydrides
Recommended Storage Temperature:	Room Temperature

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): None

ACGIH Threshold Limit Values (TLVs): None

Engineering Controls:

Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection:	Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.
Skin Protection:	Protective gloves
Body Protection:	Lab coat
Respiratory Protection:	A NIOSH/MSHA approved air purifying respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White crystalline powder
pH:	No data available
Solubility:	Soluble in water
Melting Range:	169-171 °C
Vapor Density:	No data available
Vapor Pressure:	3.5 hPa (2.6 mmHg) at 20 °C (68 °F)
Specific Gravity:	No data available
Odor:	Odorless
Odor Threshold:	No data available
Viscosity:	No data available
Relative Density:	1.440 g/cm <sup>3</sup>
Evaporation Rate:	No data available
Initial Boiling Point and Boiling Range:	300 °C (572 °F)
Flammability (solid, gas):	No data available
Partition coefficient: n-octanol/water):	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Flash Point (Closed Cup):	No data available
Flammable Limits:	Upper (%) – No data available      Lower (%) – No data available

## 10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions of use
Possibility of Hazard Reactions:	No data available
Conditions to Avoid:	No data available
Incompatibles Materials:	Potassium, acid anhydrides
Hazardous Decomposition Products:	Boron oxides

## 11. TOXICOLOGICAL INFORMATION

Toxicity:	LD <sub>50</sub> (Oral-Rat)(mg/Kg)	482
	LD <sub>50</sub> (IPR-Mouse)(mg/Kg)	33
	LD <sub>50</sub> (Dermal-Rat)(mg/Kg)	>2,000
Carcinogenicity:	NTP:	No

IARC: No

OSHA Reg: No

Reproductive Toxicity: No data available

Specific Target Organ Toxicity: Single Exposure: No data available

Repeated Exposure: No data available

Target Organs: No data available

Routes of Entry: Inhalation, Ingestion, eye and skin contact

NIOSH/RTECS NO: ED4550000

***The toxicological properties of this product have not been thoroughly investigated***

## **12. ECOLOGICAL INFORMATION**

Ecotoxicity: EC50 – water flea – 0.024 mg/L – 48 hrs.

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

## **13. DISPOSAL CONSIDERATION**

Disposal Procedure: Dispose in accordance with all applicable federal, state, and local environmental regulations.

## **14. TRANSPORT INFORMATION**

Domestic (D.O.T.): Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

Reportable Quantity: N/A

UN/NA: N/A

Labels: N/A

International:

IMDG: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

UN/NA: N/A

Labels: N/A

IATA: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

UN/NA: N/A

Labels: N/A

## 15. REGULATORY INFORMATION

**TSCA:** Yes

### SARA TITLE III:

Section 302 (EHS) Ingredients: No

Section 313 Ingredients: No

Section 304 (EHS/CERCLA) Ingredients: No

Section 311/312 Hazard: Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right to Know Components:** This product is not on the Massachusetts Substance List (MSL).

**Pennsylvania Right to Know Components:** This product is not listed on the Pennsylvania Code's Hazardous Substance List (Chapter 323).

**New Jersey Right to Know Components:** This product is not listed amongst the New Jersey Right to Know Hazardous Substance Fact Sheets

**California Prop. 65 Components:** This product is not known to the State of California to cause cancer or reproductive toxicity.

## 16. OTHER INFORMATION

HMIS Rating:

Health Hazard	Flammability	Physical Hazard	Personal Protection
2	0	0	B

NFPA Rating:

Health Hazard	Fire Hazard	Instability	Special Hazard
2	0	0	

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