

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: BORON PLUS

MSDS No.: 99-57200

Date of Preparation: 6/14/95

Date of Revision: 12/3/02

NFPA HAZARD RATINGS: Health (1) Fire (0) Reactivity (0)

(0) least (1) slight (2) moderate (3) high (4) extreme

Section 1-CHEMICAL PRODUCT and COMPANY IDENTIFICATION

General Product Composition: Proprietary Polymerous Hydrosol Leachate with Inorganic Boron Salt. **Intended Use:** Turf Management. **Manufactured for:** Spindler Enterprises, Inc., P.O. Box 6112, Lakeland, FL 33807. **Phone:** (863) 619-9822. **Emergency Telephone:** CHEMTREC 1-800-424-9300.

Section 2-COMPOSITION/INFORMATION on INGREDIENTS

HAZARDOUS INGREDIENT NAME	FORMULA	CAS No.	ACGIH TLV TWA
Sodium Borate anhydrous			
Sodium tetraborate, borax	$\text{Na}_2\text{B}_4\text{O}_7$	1330-43-4	1 mg/M ³
Sodium Borate Pentahydrate	$\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$	12179-04-3	1 mg/M ³
Sodium Borate Decahydrate	$\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$	1303-96-4	5 mg/M ³
Solubor			
Sodium Tetraborate	$\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$	12179-04-3	NA
Sodium Pentaborate	$\text{Na}_2\text{B}_{10}\text{O}_{16} \cdot 10\text{H}_2\text{O}$	12007-92-0	NA

TRACE IMPURITIES: organic acids and biostimulants from composting. **EXPOSURE LIMITS:** (REFER TO SECTION 8)

Section 3-HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Potential Health Effects: **Primary Entry Routes:** Skin, eyes, ingestion. **Target Organs:** Liver and kidneys. **Acute Effects:** *Inhalation:* Repeated or prolonged inhalation may cause respiratory irritation. *Eye:* May cause irritation, burning and/or redness. *Skin:* May cause irritation, burning and/or redness. *Ingestion:* May be harmful if swallowed. May cause abdominal cramps, nausea, vomiting and/or diarrhea. **Carcinogenicity:** IARC: NO; NTP: NO; OSHA: NO. **Medical Conditions Aggravated by Long Term Exposure:** Persons with existing skin lesions should exercise caution when using or handling this product. These individuals should also avoid all contact with any spray mist. **Chronic Effects:** Prolonged absorption or exposure may cause weight loss, vomiting, diarrhea and/or skin rash.

Section 4-FIRST AID MEASURES

Inhalation: Remove to fresh air. **Eye Contact:** Flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart intermittently for about 10 or 15 seconds during the flushing to insure contact of water with all accessible tissue of eyes and eyelids. Get medical attention if irritation develops. **Skin Contact:** Remove any contaminated clothing. Wash affected area with mild soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse. **Ingestion:** Give 2 or 3 glasses of water to drink. Induce vomiting by touching back of throat with finger. Get immediate medical attention. *After first aid, get appropriate in-plant, paramedic, or community medical support* **Note to Physicians:** Ingested product may be removed by ipecac emesis followed by activated charcoal. Gastric lavage may be useful. Convulsions may be controlled by use of diazepam, 0.1 mg/kg IV. **Special Precautions/Procedures:** Avoid all contact with eyes and skin. Do not take internally.

Section 5-FIRE FIGHTING MEASURES

Flash Point: ND **Flammability Classification:** Non-flammable **Extinguishing Media:** water spray, dry chemical, carbon dioxide, foam. **Unusual Fire or Explosion Hazards:** Containers exposed to fire may rupture violently. Keep containers cool with water spray. **Hazardous Combustion Products:** Not known. **Fire-Fighting Instructions:** Fire fighters should wear NIOSH approved self-contained breathing apparatus, full mask and full protective equipment. Prevent runoff from entering water systems. Keep non-essential personnel out of fire area and out of fumes or vapors.

Section 6-ACCIDENTAL RELEASE MEASURES

Spill/Leak Procedures: Small Spills: Wear protective equipment. Prevent spill from entering water systems. Absorb spill on inert material such as clay, vermiculite or kitty litter. Place absorbed material into labeled container for proper disposal. **Large Spills:** Dike to prevent spill from entering water systems. **Cleanup:** If spill is of major proportions, soil may need to be excavated.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: BORON PLUS

Section 7- HANDLING and STORAGE

Handling Precautions: Avoid contact with skin, eyes and clothing. Do not take internally. Wash after handling. Do not contaminate water by disposal of equipment wash waters. **Storage Requirements:** Keep container upright, tightly closed. Store in a cool, dry area preferably locked and out of reach of children and animals, and away from heat-producing devices. Extreme conditions (hot or cold) may hamper product's integrity.

Section 8-EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in open, outdoor areas only. **Respiratory Protection:** In confined areas, NIOSH/MSMA approved respirator. **Protective Clothing/Equipment:** Safety glasses/goggles or full-face shield recommended. Impervious gloves and impervious boots suggested.

Section 9-PHYSICAL/CHEMICAL PROPERTIES

Physical State: Liquid. **Appearance & Odor:** Free flowing, light amber colored liquid. **Solubility in Water:** Soluble.
Density: 9.5 lbs. per gal. **Specific Gravity (@ 68°F):** 1.139. **pH (@ 68°F):** 7.4.

Section 10-STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use and storage. DO NOT FREEZE. **Polymerization:** NO. **Chemical Incompatibilities:** Strong acids, bases and oxidizing agents. **Conditions to Avoid:** Extreme heat. Do not freeze. **Hazardous Decomposition Products:** Not known.

Section 11-TOXICOLOGICAL INFORMATION

Undiluted sodium borate may be harmful upon contact with eyes and may cause skin irritation. Similar products do not show carcinogenic, mutagenic or teratogenic potential.

Section 12-ECOLOGICAL INFORMATION

Ecotoxicity: Accidental spills of undiluted product may cause vegetation kills. **Environmental Fate:** Keep out of any body of water.

Section 13-DISPOSAL CONSIDERATIONS

Disposal: Consult local, state or federal regulatory agencies for acceptable disposal procedures and locations. Disposal in waterways or sewers may be prohibited.

Section 14-TRANSPORT INFORMATION

DOT Transportation Data (49 CFR 172.101): **Shipping Name:** not regulated.

Section 15-REGULATORY INFORMATION

EPA Regulations: Not regulated by EPA under FIFRA or FQPA. **OSHA Regulations:** Sodium Borate was removed from the tables of OSHA Subpart Z requirements. **State Regulations:** Sodium borates appear on the NJ RTK Chemical List and sodium tetraborate appears on the CA RTK Chemical List. Check with specific state authorities since regulations vary within the states. **SARA Title III; Sections 311/312: Sudden Release of Pressure (N), Reactivity (N), Fire (N), Immediate (Acute) Health (Y), Delayed (Chronic) Health (N)**

Section 16-OTHER INFORMATION

DISCLAIMER: The information on this MSDS was obtained from current and reliable sources intended for persons having related technical skills. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. It is the users responsibility to determine safe conditions for use of the product and to assume liability for loss, injury, damage, or expense resulting from improper use. ND= Not Determined; NA= Not Applicable; NIA= No Information Available.