

MICRO PLUS™ BORON

Material Safety Data Sheet (rev.01/05)

**SECTION I PRODUCT IDENTIFICATION**

<b>NFPA HAZARD RATINGS</b>	
HEALTH HAZARD 1	FIRE HAZARD 1      REACTIVITY 0
<b>SARA/ TITLE III HAZARD CATEGORIES (See Section IX)</b>	
Immediate (ACUTE) Health: NO	Reactive Hazard: NO
Delayed (Chronic) Health: NO	Fire Hazard: NO      Sudden Release of Pressure: NO
Company Name:	STOLLER USA, INC.
Address:	4001 West Sam Houston Pkwy N. Houston, Texas 77043
Emergency Phone Number:	CHEMTREC: 1(800)424-9300
Phone Number for Information:	1(713)461-1493
Chemical Family:	Mono Borate
Chemical Name & Synonyms:	Boric Acid
Formula:	Proprietary
Trade name & Synonyms:	<b>MICRO PLUS BORON</b>

**SECTION II PHYSICAL AND CHEMICAL CHARACTERISTICS**

INGREDIENTS:	CAS#	Approx. %	TLV
Orthoboric Acid	10043-35-3	53%	N/ E
Dimethyl Aminopropylamine	109-55-7	3%	N/ E

**SECTION III PHYSICAL AND CHEMICAL CHARACTERISTICS**

<b>BOILING POINT:</b>	230° F	<b>VAPOR PRESSURE (mm/ Hg):</b>	
<b>MELTING POINT:</b>	N/ A	<b>VAPOR DENSITY (air = 1):</b>	N/ A
<b>SPECIFIC GRAVITY:</b>	1.28	<b>REACTIVITY IN WATER:</b>	-0-
<b>SOLUBILITY IN WATER:</b>	100%	<b>EVAPORATION RATE:</b>	
<b>APPEARANCE AND ODOR:</b>	Blue liquid - with no odor.		

**SECTION IV FIRE AND EXPLOSION DATA**

<b>FLASH POINT:</b>	Not Established (N/ E)	<b>LEL:</b>	<b>UEL:</b>
<b>FLAMMABLE LIMITS:</b>	N/ E		
<b>EXTINGUISHER MEDIA:</b>	In case of fire use: Carbon Dioxide (CO <sub>2</sub> ), Dry Chemical, Alcohol foam.		
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	Firefighters should wear butyl rubber boots and clothing.		

**SECTION V****PHYSICAL HAZARDS (REACTIVITY DATA)**

<b>STABILITY:</b>	Stable: Yes	Unstable:
<b>CONDITIONS TO AVOID:</b>	N/ A	
<b>INCOMPATIBILITY, MATERIALS TO AVOID:</b>	Oxidizing Agents (perchlorates, nitrates, nitrites, etc.) and high concentrations of mineral acids.	
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Carbon Monoxide, Nitrogen Oxide, Carbon Dioxide and Nitric Acid possible in a fire.	
<b>MAY OCCUR:</b>	Ammonia and hydrogen Cyanide under extreme heat as in a fire.	
<b>WILL NOT OCCUR:</b>	X	

**SECTION VI****HEALTH HAZARDS**

- A. EXPOSURE LIMITS:**
1. OSHA Permissible Exposure Limit (PEL): NOT ESTABLISHED
  2. Threshold Limit Value (TLV): NOT ESTABLISHED
- B. CARCINOGEN OR POTENTIAL CARCINOGEN:**
- C. EFFECTS OF OVEREXPOSURE:**
1. **ACUTE:**  
**EYES:** Prolonged exposure to low concentrations of vapors may cause: Eye irritation and eye damage can occur.  
**SKIN:** May cause malaise, discomfort, injury and death unless treated promptly.  
**INHALATION:** Prolonged exposure to low concentrations of vapors may cause: Sore throat and headache which are temporary.  
**INGESTION:** May cause malaise, nausea, death unless treated promptly.
  2. **CHRONIC:** Chronic test data are not known.
- D. EMERGENCY FIRST AID PROCEDURES:**
- EYES:** Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
- SKIN:** Remove product & immediately flush affected area with water for 15 minutes. Do not apply greases or ointments. Launder contaminated clothing.
- INHALATION:** Move patient to fresh air. Supplemental oxygen may be indicated. Assure mucous does not obstruct airway. Call physician.
- INGESTION:** If swallowed, call a physician immediately. Remove stomach contents by gastric suction.
- E. ANIMAL TOXICITY DATA:**
- Oral LD<sub>50</sub> (rat): 905 mg/ Kg
- Inhalation LC<sub>50</sub> (rat): >21 mg/ Lt/ Hr
- Dermal LD<sub>50</sub> (rabbit): 500 - 1070 mg/ Kg

**SECTION VII****SPECIAL PRECAUTIONS & SPILL/ LEAK PROCEDURES**

- HANDLING AND STORAGE:** Keep containers closed and away from oxidizing agents. Store only in shipping container: Pails (PVC), Drums (Polyethylene) and Mini Bulk tanks (Polyethylene). Bulk material should be stored in Polyethylene Tanks with PVC fittings.
- STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED:** It is necessary to contain spill into the smallest area possible by diking, etc. Replace liquid into plastic container. If liquid is absorbed onto dry carrier such as soil or absorbent material, then this material should be held in a dry contained area.
- WASTE DISPOSAL METHODS:** Liquid should be applied to the soil as a fertilizer not to exceed 3 gallons per acre. Product absorbed onto dry carrier should be applied to soil as a fertilizer not to exceed 50 lbs. per acre.

**SECTION VIII****SPECIAL PROTECTION / CONTROL MEASURES**

- RESPIRATORY PROTECTION:** As required by emergency situation, use an OSHA or NIOSH approved respirator.
- SPECIAL VENTILATION:** Work outdoors in the open or well ventilated area with this product.
- PROTECTIVE GLOVES:** Use butyl rubber gloves.
- EYE PROTECTION:** Use splash proof eye goggles. In emergency situations it is best to wear a full face shield. Eye wash should be available.
- OTHER SPECIAL CLOTHING/ EQUIPMENT:** Wear clothing that covers the exposed skin area as much as possible.
- WORK/ HYGIENIC PRACTICES:** Wash thoroughly after handling. Also wash clothing.

**SECTION IX****ENVIRONMENTAL EFFECTS DATA**

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The available data on this plant nutrient material does not indicate any undue hazard to the environment under anticipated use and storage. Any waste due to spillage or leakage should be contained and disposed of as a Fertilizer, not to exceed 3 lbs. of actual Boron per acre (see above under Waste Disposal Methods). If discharged into the marine environment it may be toxic to fish and other marine organisms. Due to its nutrient value, may contribute to eutrophication in bodies of water.

**SECTION X****TRANSPORTATION DATA**

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**PROPER SHIPPING NAME: MICRO PLUS BORON**

**DOT HAZARD CLASS: N/ A**

**PLACARD: N/ A**

Stoller Enterprises, Inc., believes the information contained in this material safety data sheet is accurate based on the information supplied by reputable suppliers of our raw materials. The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.