

MATERIAL SAFETY DATA SHEET

BORON LIQUID 10%

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

GUARANTEED BY:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-866-944-8565
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: BORON LIQUID 10%
CHEMICAL NAME: Boric Acid (H_3BO_3) Compound; Aqueous Polyborate solution
CHEMICAL FAMILY: Micronutrient
EPA REG. NO.: not applicable
MSDS Number: 1000231197-12-LPI

MSDS Revisions: New

Date of Issue: 10/31/12

Supersedes: New

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION - May be harmful if swallowed, inhaled or absorbed through skin. May cause eye and skin irritation. Avoid contact with eyes, skin and clothing. Avoid contact with open cuts or sores. Avoid breathing vapors. Use with adequate ventilation. Eye protection and gloves are suggested when handling undiluted product. Wash thoroughly after handling and using this product. In case of contact, flush with water. Get medical attention for eyes. This blended liquid nutritional product is derived from Boric Acid, Monoethanolamine, and water. Nausea and vomiting could be expected upon large dose ingestion. The acute ingestive effects are described as nausea, chills, and diarrhea. Eye or skin contact with these products could cause irritation (particularly in sensitive persons), and respiratory irritation could be expected from the unprotected inhalation of fertilizer mists. Product users should avoid prolonged or repeated skin contact by wearing impervious gloves, long sleeve shirt, long pants, socks and rubber boots. Goggles for eye protection are recommended.

This product is a clear, colorless to pale yellow liquid with mild odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

| <u>Chemical Ingredients:</u> | <u>Percentage by Weight:</u> | <u>CAS No.</u> | <u>TLV (Units)</u> |
|-----------------------------------|------------------------------|----------------|--------------------|
| Boric Acid (H_3BO_3) Compound | 10.00 | 26038-87-9 | Not established |
| Inert ingredients | 90.00 | | |

4. FIRST AID MEASURES

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-866-944-8565**. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT ($^{\circ}$ F/Test Method): Not applicable

FLAMMABLE LIMITS (LEL & UEL): Not applicable

EXTINGUISHING MEDIA: Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of nitrogen and other unknown hazardous material may be formed.

SPECIAL FIRE FIGHTING PROCEDURES: Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Ventilate area. Contain spill, absorb liquid with clay or other absorbent material. Sweep up material and place in container for possible land application according to label use or for proper disposal. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Open the container carefully. Contents may be under pressure. Eye protection and gloves are suggested when handling undiluted product. Use with adequate ventilation.

STORAGE: Store in a cool, dry, well-ventilated area in tightly closed, compatible, corrosion resistant containers only. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Work in well-ventilated area. Local exhaust may be required if working in confined space.

RESPIRATORY PROTECTION: Wear a NIOSH approved air-purifying respirator for pesticide handling if necessary.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks. Wear rubber or chemical-resistant gloves.

OSHA PEL 8 hr TWA
Not listed

ACGIH TLV-TWA
Not listed

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, colorless to pale yellow liquid with mild odor

SPECIFIC GRAVITY (Water = 1): 1.318 g/ml @ 68°F

VAPOR PRESSURE: Not established

PERCENT VOLATILE (by volume): Not established

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

BULK DENSITY: 11.0 lbs/gal.

BOILING POINT: 170°F/76.7°C

EVAPORATION RATE: Not established

SOLUBILITY: Soluble

pH: 8.25 (neat)

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Excessive heat.

INCOMPATIBILITY: Strong oxidizing agents and acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen and other unknown hazardous material may be formed in a fire situation.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5000 mg/kg

Eye Irritation (rabbit): May cause slight irritation

Inhalation LC₅₀ (rat): May cause respiratory tract irritation.

Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH

Acute Dermal LD₅₀ (rabbit): >5000 mg/kg

Skin Irritation (rabbit): May cause slight irritation

Skin Sensitization (guinea pig): Not established

12. ECOLOGICAL INFORMATION

Drift or runoff may adversely affect non-target plants. Do not apply directly to water. Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favor drift from target area.

13. DISPOSAL CONSIDERATIONS

Do not reuse container. Rinse container thoroughly, adding rinsate to mixing tank. Then offer for recycling at an ACRC site (go to <http://www.acrecycle.org> for locations) or dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Avoid contaminating water by disposal of equipment wash waters or other product wastes.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT

Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI, LIQUID (NMFC 68140, SUB 6; CLASS 70)

15. REGULATORY INFORMATION

| | | | | | | |
|--|---|--------------|---|----------|---|--------------|
| NFPA & HMIS Hazard Ratings: | | NFPA | | HMIS | | |
| | 1 | Health | 0 | Least | 1 | Health |
| | 0 | Flammability | 1 | Slight | 0 | Flammability |
| | 0 | Instability | 2 | Moderate | 0 | Reactivity |
| | | | 3 | High | B | PPE |
| | | | 4 | Severe | | |

SARA Hazard Notification/Reporting

SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
 Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: Not listed

RCRA Waste Code: Not listed

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

16. OTHER INFORMATION

MSDS STATUS: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

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