

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

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

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: BOROSOL® 10
CHEMICAL NAME: Boric Acid (H₃BO₃) Compound with Monoethanolamine; Aqueous Polyborate solution
CHEMICAL FAMILY: Micronutrient
EPA REG. NO.: not applicable
MSDS Number: 7100704-12-LPI

MSDS Revisions: Section 9

Date of Issue: 05/02/12

Supersedes: 07/14/11

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Avoid contact with eyes and clothing. Avoid prolonged contact with skin. Do not take internally. Do not inhale vapors. Wear goggles and gloves when handling.

This product is a clear, colorless to pale yellow liquid with mild odor. Primary routes of entry are Inhalation, eye contact and skin contact.

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 ₃ BO ₃) Compound, including Monoethanolamine	10.00	26038-87-9 141-43-5	Not established 7.5 mg/m ³
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 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 (°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:

Avoid breathing mists. Sweep up liquid spills immediately and transfer to suitable containers for possible land application according to label use or for 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: Wear goggles and gloves when handling. Keep away from children, food and feed products.
STORAGE: Store in a cool place out of direct sunlight. Keep container tightly closed when not in use. May be stored in an unheated facility. Keep from freezing. Do not contaminate water supplies by handling and storage of product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Not normally required.
RESPIRATORY PROTECTION: Not normally required, if vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

Monoethanolamine	OSHA PEL 8 hr TWA 6 mg/m ³	ACGIH TLV-TWA 7.5 mg/m ³
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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, colorless to pale yellow liquid with mild odor
SPECIFIC GRAVITY (Water = 1): 1.325g/ml
VAPOR PRESSURE: Not established
PERCENT VOLATILE (by volume): Not applicable
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.

SOLUBILITY: Soluble
pH: 8.25 (neat)

BULK DENSITY: 11.05 lbs/gal.
BOILING POINT: >200°F/>93.4°C
EVAPORATION RATE (Butyl Acetate = 1): 1

10. STABILITY AND REACTIVITY

STABILITY: Stable
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.

CONDITIONS TO AVOID: Excessive heat.

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. Triple rinse (or equivalent), and add rinsate to mixing tank. Then offer for recycling at an ACRC site (go to <http://www.acrecycle.org> for locations) or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. Do not contaminate water, food, or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT.
U.S. Surface Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI, LIQUID (NMFC 68140, SUB 6; CLASS 70)

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	<table border="0"> <tr> <td colspan="2">NFPA</td> <td colspan="2">HMIS</td> </tr> <tr> <td>1</td> <td>Health</td> <td>0</td> <td>Least</td> </tr> <tr> <td>0</td> <td>Flammability</td> <td>1</td> <td>Slight</td> </tr> <tr> <td>0</td> <td>Instability</td> <td>2</td> <td>Moderate</td> </tr> <tr> <td></td> <td></td> <td>3</td> <td>High</td> </tr> <tr> <td></td> <td></td> <td>4</td> <td>Severe</td> </tr> </table>	NFPA		HMIS		1	Health	0	Least	0	Flammability	1	Slight	0	Instability	2	Moderate			3	High			4	Severe	<table border="0"> <tr> <td>1</td> <td>Health</td> </tr> <tr> <td>0</td> <td>Flammability</td> </tr> <tr> <td>0</td> <td>Reactivity</td> </tr> <tr> <td>B</td> <td>PPE</td> </tr> </table>	1	Health	0	Flammability	0	Reactivity	B	PPE
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MATERIAL SAFETY DATA SHEET

BOROSOL® 10

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: Section 9 revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

®Borosol is a registered trademark of Loveland Products Inc.

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.regulatory-info-lpi.com>

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