

MATERIAL SAFETY DATA SHEET

ACTAMASTER® SPRAY ADJUVANT

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: ACTAMASTER® SPRAY ADJUVANT
CHEMICAL NAME: Ammonium Sulfate
CHEMICAL FAMILY: Spray Adjuvant
WA REG. NO.: 34704-50006
MSDS Number: 8000510-10-LPI

MSDS Revisions: Sections 1 and 4

Date of Issue: 07/07/10

Supersedes: 10/03/08

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN - CAUTION. May cause skin and eye irritation. Avoid contact with skin and eyes. May be harmful if swallowed or inhaled. Do not breathe spray mist.

This product is a clear, colorless solution with virtually no odor. Primary routes of entry are 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>
Ammonium Sulfate	34.00	7783-20-2	none established
Inert ingredients	66.00		

4. FIRST AID MEASURES

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If in eyes: Hold eye open and rinse slowly and gently with water for 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.

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.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-866-944-8565**.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Does not flash; not applicable
FLAMMABLE LIMITS (LFL & UFL): Not applicable
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide (CO₂), foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of nitrogen and oxides of sulfur.
SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Avoid breathing vapors and contact with liquid. Collect as much liquid as possible in a clean container for reuse or absorb and sweep up immediately and transfer to suitable containers for disposal. Flush spill area with water after clean up. 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: Follow PPE recommendations in Section 8 and on product label. Use with adequate ventilation.
STORAGE: Store in a cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Do not contaminate water, food or feed 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: Not normally required, if vapors exceed acceptable levels, wear a NIOSH/ MSHA approved respirator.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks, and rubber or chemical-resistant gloves.

Personal Protection Equipment: **Applicators and other handlers must wear:** long-sleeved shirt and pants, shoes plus socks, rubber gloves, and protective eyewear. Respiratory protection is not normally required but if vapor levels are not acceptable, wear a MSHA/NIOSH approved respirator.

For product	OSHA PEL 8 hr TWA none established	ACGIH TLV-TWA none established
-------------	--	--

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, colorless solution with virtually no odor	SOLUBILITY: Miscible
SPECIFIC GRAVITY (Water = 1): 1.20g/ml	BULK DENSITY: 10.01 lbs/gal.
VAPOR PRESSURE: Not established	BOILING POINT: 212°F/100°C
PERCENT VOLATILE (by volume): >60%	EVAPORATION RATE: <1

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.

10. STABILITY AND REACTIVITY

STABILITY: Stable
INCOMPATIBILITY: None known.
CONDITIONS TO AVOID: None known.
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen, oxides of sulfur, and other unknown hazardous materials may be formed in a fire situation.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): not established	Acute Dermal LD₅₀ (rabbit): not established
Eye Irritation (rabbit): May cause irritation	Skin Irritation (rabbit): May cause irritation
Inhalation LC₅₀ (rat): May cause respiratory tract irritation.	Skin Sensitization (guinea pig): not established
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH	

12. ECOLOGICAL INFORMATION

Material is completely miscible in water. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters
 Material is may be harmful to fish and other aquatic life.

13. DISPOSAL CONSIDERATIONS

Do not reuse containers. Triple rinse (or equivalent) adding rinse water to spray tank. Offer container for recycling or dispose of container in a sanitary landfill, or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates a national recycling program. To contact your state and locale ACRC recycler visit the ACRC web page at <http://www.acrecycle.org/>. Do not contaminate water, food or feed storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT
U.S. Surface Freight Classification: ADHESIVES, ADJUVANTS, SPREADERS OR STICKERS (NMFC 4610; CLASS: 60)
 Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:

NFPA		HMIS	
1	Health	0	Least
0	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe

SARA Hazard Notification/Reporting

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

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
 SARA, Title III, Section 313: Not listed
 RCRA Waste Code: Not listed
 CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: Sections 1 and 4 revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

®Actamaster is a registered trademark of Loveland Products, Inc.

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.