

MATERIAL SAFETY DATA SHEET

FLAME®

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: FLAME® SPRAY ADJUVANT
CHEMICAL NAME: Mixture
CHEMICAL FAMILY: Adjuvant
CA REG. NO.: 34704-50047
WA REG. NO.: 34704-07003
MSDS Number: 8211101-10-LPI

MSDS Revisions: Sections 1, 2, 4, 13

Date of Issue: 07/08/10

Supersedes: 03/30/06

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN - CAUTION – Causes moderate eye irritation. Harmful if inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

This product is clear, amber to brown liquid with a mild odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Blend of Alkyl Polyglucoside, Paraffinic Oil, Ammonium Sulfate Other Ingredients	52.70 47.30	Mixture 64742-65-0 7783-20-2	none established not listed not listed

4. FIRST AID MEASURES

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. Call a poison control center or doctor for treatment advice.

If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

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 contact is made with a spray solution containing pesticides, follow the "Statement of Practical Treatment/First Aid on the pesticide label(s).

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

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): >2732°F / >1500°C (PMCC)
FLAMMABLE LIMITS (LFL & UFL): Not established
EXTINGUISHING MEDIA: CO₂, Dry chemical, or water spray.
HAZARDOUS COMBUSTION PRODUCTS: Oxides of sulfur, nitrogen, and carbon will form in a fire situation..
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Dike area to contain run-off and prevent contamination of water supplies. Burning may produce toxic fumes, carbon monoxide, carbon dioxide and oxides of silicon.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wear appropriate personal protective equipment (refer to Section 8) when responding to spills. Shut off source of leak if safe to do so. Dike and contain spill. Soak up residue with absorbent such as clay, sand or other suitable material and dispose of properly. Flush area with water to remove trace residue. Contain runoff from residue flush and dispose of properly. Place in container 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: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using toilet facilities. Keep away from children, feed and foodstuffs, fertilizers and seed.

STORAGE: Store in original container. Do not reuse empty container. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Not required.
RESPIRATORY PROTECTION: Wear a NIOSH approved respirator if necessary.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long sleeved shirt and long pants, socks and shoes. Wear impervious rubber or chemical-resistant gloves.

For product	OSHA PEL 8 hr TWA not established	ACGIH TLV-TWA not established
-------------	---	---

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, amber to brown liquid with a mild odor.	SOLUBILITY: Dispersible
SPECIFIC GRAVITY (Water = 1): 1.041 g/ml	BULK DENSITY: 8.69 lbs/gal.
VAPOR PRESSURE: Not established	BOILING POINT: 1000°C/1832°F (loss of water)
PERCENT VOLATILE (by volume): Not established	EVAPORATION RATE: 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.

10. STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: None known.
INCOMPATIBILITY: None known.
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulfur, nitrogen and carbon will form 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): Not established	Skin Irritation (rabbit): Not established
Inhalation LC₅₀ (rat): Not established	Skin Sensitization (guinea pig): Not established.
Carcinogenic Potential: None listed by OSHA, NTP, IARC, and ACGIH as a carcinogen	

12. ECOLOGICAL INFORMATION

Do not apply directly to water, or to areas where surface water is present or to or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Wastes may be disposed of on site or at an approved waste disposal facility. 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 the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at www.acrecycle.org. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT.
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	1	Health
0	Flammability	1	Slight	0	Flammability
0	Instability	2	Moderate	0	Reactivity
		3	High	H	PPE
		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, 2, 4, and 13 revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

®Flame 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.