

MATERIAL SAFETY DATA SHEET

MSO® CONCENTRATE

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: 1-800-301-7976
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: MSO® CONCENTRATE
CHEMICAL NAME: Modified vegetable oil and surfactant blend
CHEMICAL FAMILY: Surfactant
CALIF. REG. NO.: 34704-50029
WASH. REG. NO.: 34704-04009
MSDS Number: .168280-08-LPI **MSDS Revisions:** Section 16

Date of Issue: 03/13/08

Supersedes: 07/12/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION

This product is a yellow liquid with mild characteristic fatty odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Methylated vegetable oil, Alcohol ethoxylate, and Tall oil fatty acid	100.00	Mixture 34398-01-1	none established

4. FIRST AID MEASURES

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

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): >212°F/>100°C (T.C.C.)
FLAMMABLE LIMITS (LFL & UFL): Not established
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide (CO₂), foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of carbon 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: Burning material may float. Not considered explosive.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

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: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Use with adequate ventilation.
STORAGE: Store in a cool, dry place. Store in original container. Keep container tightly closed. 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: Not normally required, if vapors or dusts exceed acceptable levels, wear a NIOSH/ MSHA approved pesticide respirator.
EYE PROTECTION: Chemical goggles or shielded safety glasses, if necessary.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes with socks.

For product

OSHA PEL 8 hr TWA
not established

ACGIH TLV-TWA
not established

9. PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE AND ODOR:** Yellow liquid with mild characteristic fatty odor**SPECIFIC GRAVITY (Water = 1):** 0.900 g/ml**BULK DENSITY:** 7.51 lbs/gal.**VAPOR PRESSURE:** Not established**BOILING POINT:** >200°F/93.4°C**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.

SOLUBILITY: Emulsifies**pH:** 6.9 (1% solution)**10. STABILITY AND REACTIVITY****STABILITY:** Stable**CONDITIONS TO AVOID:** Prolonged excessive heat.**INCOMPATIBILITY:** Strong acids, bases, oxidizers.**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.**HAZARDOUS POLYMERIZATION:** Will not occur.**11. TOXICOLOGICAL INFORMATION****Acute Oral LD₅₀ (rat):** 5000 mg/kg**Acute Dermal LD₅₀ (rat):** > 4000 mg/kg**Eye Irritation (rabbit):** Minimal irritant**Skin Irritation (rabbit):** Minimal irritant**Inhalation LC₅₀ (rat):** >0.05 mg/L**Skin Sensitization (guinea pig):** Not a sensitizer**Carcinogenic Potential:** None listed in OSHA, NTP, IARC or ACGIH**12. ECOLOGICAL INFORMATION**

Not determined.

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Triple rinse (or equivalent), adding rinse water to spray tank, then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, 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 on site or 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:** 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

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 < 1 ppm Ethylene Oxide (CAS: 75-21-8), a chemical known to the State of California to cause cancer or birth defects or other reproductive harm.

16. OTHER INFORMATION

MSDS STATUS: Section 16 revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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