

SAFETY DATA SHEET

DATE REVISED: 5/21/2018

SDS NUMBER: 10403

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MSO
DESCRIPTION: Agricultural Adjuvant

MANUFACTURED FOR: Aspect Ag, LLC
2527 County Road 7
Marshall, MN 56258

EMERGENCY CONTACT: In the event of chemical emergencies involving a spill, leak, fire exposure, or accident involving chemicals – call **CHEMTREC (800) 424-9300**

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute toxicity:

Oral (category 5) – may be harmful if swallowed.

Dermal (category 5) – may be harmful in contact with skin.

Inhalation (category 5) – may be harmful if inhaled.

Skin irritation (category 2) – causes skin irritation.

Serious eye damage / eye irritation (category 2b) – causes eye irritation.

GHS Label:



Signal Word: WARNING

Precautionary Statements:

General:

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Avoid breathing fumes, mist, vapors, or spray.

Wash hands, face, and other affected areas thoroughly after handling.

Do not eat, drink, or smoke when using this product.

Use only outdoors or in a well ventilated area.

Wear protective gloves / protective clothing / eye protection / face protection.

Avoid release to the environment.

Response:

IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. Rinse mouth.

IF ON SKIN: Get medical advice or attention. Call a POISON CENTER or doctor / physician if you feel unwell. Take off contaminated clothing and wash it before reuse. Wash with plenty of soap and water.

If skin irritation occurs: get medical advice or attention.

IF INHALED: Call a POISON CENTER / doctor / seek medical attention if you feel unwell. Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Get medical advice / attention. Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

If eye irritation persists: Get medical advice / attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Percentage
Proprietary blend of methyl esters and surfactants	N/A	100%

4. FIRST AID MEASURES

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

SKIN: Remove contaminated clothing and wash before reuse. Rinse skin with plenty of water for 15-20 minutes. If skin irritation occurs, seek medical attention. Call a poison control center or doctor for treatment advice.

INHALED: Remove person to fresh air and keep comfortable for breathing. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth to mouth if possible. Call a poison control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have the person rinse mouth and sip a glass of water if able to do so. 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.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water spray, dry chemical, foam or carbon dioxide (CO₂).

FIRE FIGHTING PROCEDURES: Fight fire from a safe distance and protected location. Fight fire upwind to avoid hazardous vapors and decomposing products. Heat may build pressure and rupture closed containers, spreading fire and increasing the risk of injury. Empty containers may contain residue product and can be dangerous. Use water spray/fog for cooling containers and firefighters. Notify proper authorities if liquid material enters the sewer or public waters.

FIRE FIGHTING EQUIPMENT: As with any fire, wear self-contained breathing apparatus pressure demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PROTECTIVE EQUIPMENT: The proper personal protective equipment for incidental releases (such as 1 liter of product released in a well ventilated area), use impermeable gloves, goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with the latest OSHA and/or ANSI recommendations.

ENVIRONMENTAL PRECAUTIONS: Stop spill at source. Construct temporary dikes of dirt, sand, or appropriate readily available material to prevent spreading of material. Close cap or valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate assistance.

CONTAINMENT AND CLEANUP: Absorb spilled liquid with polypads or other absorbent materials. Clean up with non-combustible absorbent (such as sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal.

7. HANDLING AND STORAGE

HANDLING: Follow all SDS / label precautions when using this product. Do not reuse the container.

STORAGE: Store between 40°F and 120°F. Isolate from strong oxidants.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Facilities storing or utilizing this material should be equipped with an eyewash station and safety shower.

Ventilation System: A system of local and / or general exhaust may be necessary to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emission of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

RESPIRATORY PROTECTION: For most conditions, no respiratory protection should be needed; however, use NIOSH/MSHA approved organic vapor respirator as necessary.

Airborne Exposure Limits:

ACGIH TLV	10 mg/m ³
OSHA PEL - TWA	5 mg/m ³ (mist - respirable fraction)
OSHA PEL - TWA	15 mg/m ³ (mist - total)

EYE PROTECTION: Wear OSHA standard chemical splash goggles.

SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be need. Use impervious gloves such as neoprene.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, yellow liquid
Odor	Fatty ester / alcohol
pH (0.25% aqueous solution)	5.5 – 6.5
Freeze / Melting Point	Not determined
Boiling Point / Range	Not determined
Specific Gravity (20°C)	0.84 – 0.94
Flash Point	> 160°C
Color (Gardner)	4 - 7
Solubility in Water	Dispersible
Kinematic viscosity (mm ² /s) at 40°C	23 - 27
Odor Threshold	Not determined
Evaporation Rate	Not determined
Upper / Lower Flammability Limits	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Partition Coefficient	Not determined
Auto-Ignition Point	Not determined
Decomposition Temperature	Not determined

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable at ambient temperatures and atmospheric pressure.

CONDITIONS TO AVOID: Strong oxidizing agents. Isolate from open flames and heat. Keep material away from aluminum metal, oleum, and nitroform.

HAZARDOUS DECOMPOSITION: Combustion may yield carbon monoxide, carbon dioxide, and other hazardous gases.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE: based on product components.

Oral LD ₅₀	Rat	> 4,000 mg/kg
Dermal LD ₅₀	Rabbit	> 2,000 mg/kg

Eye – may cause irritation to eyes including redness, tearing, blurred vision and discomfort.

Skin – may cause irritation to skin. Absorption through skin increases exposure. Prolonged exposure may cause more severe irritation such as local redness and swelling.

Inhalation – may irritate the respiratory tract and cause discomfort to nose and throat.

Ingestion – swallowing can cause abdominal irritation, nausea, vomiting and diarrhea. Do not taste or swallow product.

Chronic exposure: no data available

Aggravation of pre-existing conditions: no data available

Specific Target Organ Toxicity – Single Exposure: no data available

Specific Target Organ Toxicity – Repeated Exposure: no data available

Germ Cell Mutagenicity: no data available

Reproductive Toxicity: no data available

Aspiration Hazard: no data available

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: no data available

ECOTOXICOLOGICAL DATA:

LC ₅₀ 96 hours	Rainbow Trout	24 mg/L
NOE 96 hours	Rainbow Trout	4.6 mg/L
EC ₅₀ 48 hours	Daphnia magna	96 mg/L

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Do not contaminate water, food, or feed by disposal.

PRODUCT DISPOSAL: Disposal of contents / container must be in compliance with local, state, and federal laws and regulations (contact local or state environmental agency for specific rules).

EMPTY CONTAINER: Empty containers must be handled properly due to product residue.

14. TRANSPORTATION INFORMATION

SHIPPING DESCRIPTION: Not regulated for ground transportation by US DOT.

15. REGULATORY INFORMATION

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311 / 312 Hazard Categories – Acute

313 Reportable Ingredients – None

302 / 304 Emergency Planning – Not listed

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65) – This product contains no chemicals known to the state of California to cause cancer or reproductive toxicity.

TRACE ELEMENTS: Trace ingredients (if any) are present in < 1% concentration (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute a significant additional hazard at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), US State equivalents, and Canadian Hazardous Material Identification System Standard (CPR 4).

16. OTHER INFORMATION

REASON FOR ISSUE: Initial

APPROVAL BY: Technical Services Manager

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