



## Safety Data Sheet

### MSO ULTRA/MSO COMPLETE

SDS Number: 110

Revision: MAY 8, 2015

**Section 1: IDENTIFICATION****Product Name:**

MSO ULTRA/MSO COMPLETE

**Other Identification:**

Chemical description:

Modified vegetable oil and Surfactant Blend

**Recommended Use of Chemical:**

Agricultural Industry – Spray Adjuvant

**Manufacturer:**

CUSTOM AG FORMULATORS, INC.

P.O. BOX 26104

FRESNO, CA 93725

Information:

(559) 435-1052

**1.5 Emergency Contact:**

CUSTOM AG FORMULATORS, INC (800) 355-4457

CHEMTREC

(800) 424-9300 Domestic

**Section 2: HAZARD(S) IDENTIFICATION****Signal Word:**

WARNING

**Hazard Classification:**

Eye Irritation - 2B; H320

Inhalation Toxicity – 4 H332

**Hazard Statement(s):**

Causes Eye Irritation

May be harmful in contact with skin

May be harmful if swallowed

Harmful if inhaled

**Precautionary Statement:**

Avoid breathing dust / fume / gas / mist / vapors / spray

Avoid release to the environment

Use personal protective equipment as required

**Section 3: COMPOSITION/INFORMATION on INGREDIENTS****Chemical Ingredients:** (See Section 8 for exposure guidelines)

<u>Ingredient</u>	<u>CAS No</u>	<u>Percent</u>
Methylated Vegetable Oil, Polyethoxylated derivatives thereof	Proprietary	100%

**Section 4: FIRST AID MEASURES****Symptoms/Effects:**

**Acute:** Eye contact may cause eye irritation. Repeated or prolonged skin contact may cause skin irritation. Ingestion may irritate the gastrointestinal tract.

**Chronic:** No known chronic effects.

**Eyes:** Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to ensure thorough flushing of the entire area of the eye and lids. Obtain medical attention if irritation occurs.

**Skin:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.

**Ingestion:** If victim is conscious, give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.

**Inhalation:** Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start CPR. Obtain medical attention.

**Section 5: FIRE FIGHTING MEASURES****Flammable Properties:** (See Section 9 for additional flammable properties)

**NFPA:**            **Health - 1**            **Flammability - 0**            **Reactivity - 0**

**Suitable Extinguishing Media:** Not flammable, use media suitable for combustibles involved in fire.

**Unsuitable Extinguishing Media:** None known

**Protection of Firefighters:**

**Specific Hazards Arising from the Chemical:**

**Physical Hazards:** N/A

**Chemical Hazards:** N/A

**Protective Equipment and Precautions for Firefighters:**

Firefighters should wear self-contained breathing apparatus (SCBA) and full fire-fighting turnout gear.

<b>Section 6: ACCIDENTAL RELEASE MEASURES</b>
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**Personal Precautions:** Use personal protective equipment specified in Section 8. Isolate the hazard area and deny entry to unnecessary, untrained and unprotected personnel.

**Environmental Precautions:** Keep out of drains, sewers, or watercourses. Do not contaminate waters

**Methods of Containment:**

**Small Release:** Confine and absorb small releases with sand, earth or other inert absorbents.

**Large Release:** Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into surface waterways (potential aquatic toxicity), storm drains or sewers.

**Methods for Cleanup:**

**Small Release:** Shovel up the absorbed material and place in drums for disposal as a chemical waste or recycle as a fertilizer as the original product was intended.

**Large Release:** Recover as much of the spilled product as possible using portable pump and hoses. Use recovered material as originally intended or dispose of as a chemical waste. Treat remaining material as a small release (above).

<b>Section 7: HANDLING and STORAGE</b>
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**Handling:** Avoid contact with eyes. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated contact with the skin.

**Storage:** Store in cool dry areas. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures. (See Section 10.5 for materials of construction.)

<b>Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
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**Exposure Guidelines:**

Chemical	OSHA PELs		TLV/PEL	
	TWA	STEL/C	TLV	pel
Not applicable No Listings				

**Engineering Controls:** Use adequate exhaust ventilation to prevent inhalation of product vapors. Keep eye wash/safety shower in areas where product is commonly handled.

**Personal Protective Equipment (PPE):**

**Eye/Face Protection:** Safety goggles and a full face shield is advised.

**Skin Protection:** Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

**Respiratory Protection:** None generally required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.

**Hygiene Considerations:** There are no known hazards associated with this product when use as recommended, however common good industrial hygiene practices should be followed, such as washing thoroughly after handling and before eating or drinking.

**Section 9: PHYSICAL and CHEMICAL PROPERTIES**

<b>Appearance:</b>	clear yellow liquid
<b>Odor:</b>	Possible slight fatty odor
<b>Odor Threshold:</b>	Not determined
<b>pH:</b>	6.9
<b>Melting Point/Freezing Point:</b>	Not applicable
<b>Boiling Point:</b>	>200°F (93.4°C)
<b>Flash Point:</b>	>212°F (100°C)
<b>Flammability:</b>	Not applicable
<b>Upper/Lower Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	<0.0001 mmHg
<b>Vapor Density:</b>	10+
<b>Specific Gravity:</b>	0.90 g/ml (7.51 lbs/gal) ( <i>Typical</i> )
<b>Solubility (in water):</b>	Soluble
<b>Partition Coefficient:</b>	Not applicable
<b>Auto-ignition Temperature:</b>	Not applicable
<b>Decomposition Temperature:</b>	Data not available.
<b>Viscosity:</b>	115.5 centistokes @68°F (20°C)

**Section 10: STABILITY and REACTIVITY**

<b>Reactivity:</b>	No information found
<b>Chemical Stability:</b>	This is a stable product under normal (ambient) temperature and pressure conditions.
<b>Possibility of Hazardous Reactions:</b>	N/A
<b>Conditions to Avoid:</b>	Avoid heat, sparks, flames
<b>Incompatible Materials:</b>	Strong oxidants such as liquid chlorine, enriched oxygen And sodium or calcium hypochlorite
<b>Hazardous Decomposition Products:</b>	N/A

**Section 11: TOXICOLOGICAL INFORMATION**

<b>Oral(Oral LD60):</b>	>2,000 mg/L (rat)
<b>Dermal(Dermal LD60):</b>	>4,000 mg/L (rat)
<b>Inhalation LC50:</b>	Not determined
<b>Eyes:</b>	>2.01 mg/L (rat) 4 hour
<b>Chronic/Carcinogenicity:</b>	Not listed in NTP, IARC or by OSHA.
<b>Teratology:</b>	Not determined
<b>Reproduction:</b>	Not determined
<b>Mutagenicity:</b>	Not determined

**Section 12: ECOLOGICAL INFORMATION**

<b>Ecotoxicity:</b>	Not determined
<b>Persistence &amp; Degradability:</b>	Not determined
<b>Bioaccumulative Potential:</b>	Not determined
<b>Mobility in Soil:</b>	Not determined
<b>Other Adverse Effects:</b>	Do not contaminate water supplies, lakes, ponds, streams or drains.

**Section 13: DISPOSAL CONSIDERATIONS**

Consult federal, state and local regulations for disposal requirements.

**Section 14: TRANSPORT INFORMATION****Basic Shipping Description:**

<b>Proper Shipping Name:</b>	Not <i>regulated by DOT, IATA or IMDG</i>
<b>Hazard Classes:</b>	Not applicable
<b>Identification Number:</b>	Not applicable
<b>Packing Group:</b>	Not applicable
<b>Hazardous Substance:</b>	No
<b>Marine Pollutant:</b>	No
<b>Freight Classification:</b>	Adhesives, Adjuvants, Spreaders or stickers, NOI (NMFC item 4610, Class 60)

**Section 15: REGULATORY INFORMATION****U.S. Federal Regulations:**

<b>OSHA:</b>	This product meets the criteria of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>TSCA:</b>	Product is contained in USEPA Toxic Substance Control Act Inventory.
<b>CERCLA:</b>	Reportable Quantity – Not applicable

**SARA Title III:**

Classification (Yes/No)

Immediate (Acute) Health:	Y
Delayed (Chronic) Health:	N
Sudden Release of Pressure:	N
Fire:	N
Reactive:	N

**HMIS Ratings:    Health: 1                      Fire: 0                      Reactivity: 0**

Hazard Scale: 0 = Minimal    1 = Slight    2 = Moderate    3 = Serious    4 = Severe

**Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.**

**Section 16:    OTHER INFORMATION****History:**

Date of Revision;                      05/08/2015

**Further Information:**

The above information is based on data of which the manufacturer is aware and is believed to be correct as of the date hereon. Since the information contained herein may be applied under conditions beyond the manufacturer's control and which may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, the manufacturer does not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.