

# SAFETY DATA SHEET

## SECTION 1. IDENTIFICATION

**PRODUCT NAME:** MicroCoat Ultra  
**DESCRIPTION:** Agricultural Adjuvant  
**MANUFACTURED FOR:** AgXplore International, LLC.  
7035 State Hwy D  
Parma, Missouri, USA, 63870  
Telephone: (573) 357-4506

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

## SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification(s):** Serious Eye Damage/Eye Irritation Category 1  
Skin Corrosion/Irritation Category 2  
Reproductive Toxicity Category 2  
Specific Target Organ Systematic Toxicity (STOT) –  
Repeated Exposure Category 2

**GHS Hazard Symbols:**



**Signal Word:** Danger

**Hazard Statements:** Causes skin irritation.  
Causes Serious eye damage.  
May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements:**

**Prevention:** Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash thoroughly after handling.  
Wear protective gloves/protective clothing  
Wear protection for eyes and face.

**Response:** Skin: Wash with plenty of water.  
Eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for 15 minutes.

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Immediately call a POISON CENTER or doctor/physician.

**Storage:** Store in a secure manner.

**Disposal:** Dispose of in accordance with local, regional, and international regulations.

**Hazards Not Otherwise Classified:**  
None.

**Percentage of Components with Unknown Acute Toxicity:**

**Oral:** Not determined

**Dermal:** Not determined

**Inhalation Vapor:** Not determined

**Inhalation Dust/Mist:** Not determined

**SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component	CAS #	Amount
Citric acid	77-92-6	<1%
Magnesium Sulfate, Heptahydrate	10034-99-8	<25%
Manganese Sulfate Monohydrate	10034-96-5	<5%
Zinc Sulfate Monohydrate	7446-19-7	<12%
Sodium Molybdate	7631-95-0	<1%

**SECTION 4. FIRST AID MEASURES**

**Description of first aid measures:**

**General advice:** If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY. Keep warm and quiet.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

**Ingestion:** If swallowed, call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. If a large amount is swallowed, get medical attention.

**Most Important Symptoms/Effects, Acute and Delayed:**

**Eye Contact:** Causes mild to severe irritation. May cause: irritation, pain, swelling, tearing, light sensitivity, corneal burns. Effects depend on concentration and duration of exposure.

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**Skin Contact:** May cause mild to moderate irritation. Contact may cause: irritation, redness, pain, sensitization.

**Skin Absorption:** May be absorbed through skin. Poorly absorbed through intact skin. May be absorbed through damaged skin. Effects may include those described for swallowing.

**Inhalation:** May cause moderate to severe irritation. May irritate: nose, throat, upper respiratory tract. Irritation may be severe. May cause: difficulty breathing, low blood pressure, dizziness, bluish skin color, lung congestion. Chronic exposure may cause: digestive disorders, reflex bronchoconstriction.

**Ingestion:** May cause mild to severe irritation. May cause: gastrointestinal irritation, gastrointestinal disturbances, abdominal pain, nausea, vomiting, diarrhea.

**Indication of Immediate Medical Attention and Special Treatment Needed:** Treatment is symptomatic and supportive.

## SECTION 5. FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Water fog or fine spray, Dry chemical fire extinguishers, Carbon dioxide fire extinguishers, Foam.

### Special Hazards Arising from the Chemical:

**Fire and Explosion Hazard:** None known. May be explosive when mixed with hypochlorites due to the formation of nitrogen trichloride which explode spontaneously in air. Reacts violently with chlorine bleach. Resultant product may explode. May burn but does not ignite readily.

**Hazardous Combustion Products:** Sulfur oxides. Ammonia. Carbon dioxide. Cyanuric acid. Biuret. Nitrogen oxides. Toxic and/or hazardous gases. Manganese oxides. Zinc oxides.

**Special Protective Equipment and Precautions for Fire-Fighters:** Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of the fire to avoid hazardous vapors and decomposition products. Run-off from fire control may cause pollution. Move containers from fire area if possible without hazard.

**Hazardous Combustion Products:** May include but are not limited to oxides of carbon and nitrogen.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:** Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

**Methods and Materials for Containment and Clean Up:** Shut off source of leak if safe to do so. Contain spill, place into drums for proper disposal. Soak up residue with inert absorbent material. Place in non-leaking containers for immediate disposal. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. CAUTION: Spilled material may be slippery.

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## SECTION 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling.

**Conditions for Safe Storage, Including any Incompatibilities:** Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Store in a dry location. Keep containers tightly closed.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### OSHA Exposure Guidelines:

Component	Limits
Manganese Sulfate Monohydrate	5 mg/m <sup>3</sup> Ceiling (as Mn)

### ACGIH Exposure Guidelines:

Component	Limits
Manganese Sulfate Monohydrate	0.02 mg/m <sup>3</sup> TWA (respirable particulate matter, as Mn); 0.1 mg/m <sup>3</sup> TWA (inhalable particulate matter, as Mn)

**Engineering Controls:** Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Maintain adequate ventilation. Do not use in closed levels, monitoring should be performed regularly.

### Individual Protection Measures:

**Eye/Face Protection:** Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material.

**Skin Protection:** Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant and impervious.

**Respiratory Protection:** Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved respirator for dusts and mists. NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respirator protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

**Other Protective Equipment:** Eye-wash station. Safety shower. Protective clothing.

**General Hygiene Conditions:** Wash with soap and water before meals and at the end of each work shift. Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Odor	Mild odor
Color	Dark brown
pH (neat)	2.0-3.0
Freezing Point	17 °F
Melting Point	Not Determined
Boiling Point / Range	Not Determined
Specific Gravity (25°C)	1.29 at 25°C
Flash Point	Not Determined
Solubility in Water	Soluble
Viscosity	10.9 cPs
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
Density	10.72 lbs/gal

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity:** No data available.

**Chemical Stability:** Stable under normal temperatures and pressures.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur under normal conditions. Urea will form urea nitrate when mixed with nitric acid at low pH. Urea nitrate may become unstable and/or explosive under certain conditions. Reacts with alkalines to form salts.

**Conditions to Avoid:** Avoid excessive heat.

**Incompatible Materials:**

Strong oxidizing agents

**Corrosive Effects on:** Mild steel.

**Reacts with:** Sodium hypochlorite or calcium hypochlorite to form nitrogen trichloride which may explode spontaneously with air. Metal hydrides.

**Hazardous Decomposition Products:** At very high temperatures, the following may be generated: Magnesium oxide. Sulfur oxides. Carbon dioxide. Nitrogen oxides. Manganese oxides. Zinc oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

**Routes of Exposure:** Eyes. Ingestion. Inhalation. Skin. Absorption

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**Symptoms/Effects: Acute, Delayed, and Chronic:**

- Eye Contact:** Causes mild to severe irritation. May cause: irritation, pain, swelling, tearing, light sensitivity, corneal burns. Effects depend on concentration and duration of exposure.
- Skin Contact:** May cause mild to moderate irritation. Contact may cause: irritation, redness, pain, sensitization.
- Skin Absorption:** May be absorbed through skin. Poorly absorbed through intact skin. May be absorbed through damaged skin. Effects may include those described for swallowing.
- Inhalation:** May cause moderate to severe irritation. May irritate: nose, throat, upper respiratory tract. Irritation may be severe. May cause: difficulty breathing, low blood pressure, dizziness, bluish skin color, lung congestion. Chronic exposure may cause: digestive disorders, reflex bronchoconstriction.
- Ingestion:** May cause mild to severe irritation. May cause: gastrointestinal irritation, gastrointestinal disturbances, abdominal pain, nausea, vomiting, diarrhea. Manganese poisoning, as described in inhalation, has been reported in persons drinking manganese-contaminated well water. May cause damage to: kidneys, liver. Symptoms of severe poisoning may occur within 30 minutes or be delayed for several hours. The average lethal dose of iron is about 200 to 250 mg per kg of body weight. Small amounts (e.g. a teaspoonful) swallowed accidentally are not likely to cause effects; swallowing amounts larger than that may cause gastrointestinal symptoms.

**Numerical Measures of Toxicity:**

Component	Oral LD50	Dermal LD50	Inhalation LC50
Manganese Sulfate	Rat: 2150 mg/kg	No Data	No Data
Zinc Sulfate Monohydrate	Mouse: 1260 mg/kg	No Data	No Data

**Acute Toxicity Estimate (ATE)**

**Oral:** No data available

**Cancer Information:**

This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

**SECTION 12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL IMPACT RATING: (0-4):** No data available for this product.

**Aquatic Acute Toxicity:** Zinc Sulfate heptahydrate: Freshwater Fish LD50 96 h: 1.9 mg/L

**DEGRADABILITY:** No data available for this product.

**BIOACCUMULATION FACTOR (BCF):** No data available for this product.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Hazardous Waste Number:** NA

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Disposal Method: Dispose of in accordance with all local, state, and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied.

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. If possible recover the product, otherwise dispose of in authorized landfill. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL.

#### SECTION 14. TRANSPORT INFORMATION

**DOT Non-Bulk:** Not Regulated

**DOT Bulk:** Not Regulated

**Freight Classification:** Fertilizing Compounds (Manufactured Fertilizers), NOI, Liquid (NMFC 68140, Sub 6; Class 70)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

#### SECTION 15. REGULATORY INFORMATION

**TSCA Inventory Status:** All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements.

**SARA Title III Section 311/312 Category Hazards:** Please see Section 2 of this SDS.

Regulated Components:	CAS	CERCLA	SARA	SARA	U.S.	WI	Prop
Component	Number	RQ	EHS	313	HAP	HAP	65
Manganese Sulfate Monohydrate	10034-96-5	No	No	Yes	Yes	Yes	No
Zinc Sulfate Monohydrate	7446-19-7	Yes	No	Yes	No	No	No

**\*Prop 65 – May Contain the Following Trace Components:**

No data available

Hazard Rating System

Health	Fire	Reactivity
1	0	0

NFPA

Health	Fire	Reactivity
1	0	0

#### SECTION 16. OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

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