

**FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300**

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER****1.1 PRODUCT IDENTIFIER:****TRADE NAME:** ACTAMASTER® SOLUBLE CRYSTAL SPRAY ADJUVANT**1.2 RECOMMENDED USE:** WATER CONDITIONING AGENT**1.3 SUPPLIER DETAILS:**

LOVELAND PRODUCTS, INC.

P.O. Box 1286 • Greeley, CO 80632-1286

**1.4 24-Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 - **Product Information:** 1-888-574-2878 (LPI-CUST)  
**U.S. Coast Guard National Response Center:** 1-800-424-8802**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Classification according to 29 CFR 1910.1200**

Eye Damage/Irritation

H320

Specific Target Organ Toxicity (Single Exposure)

H335

**2.2 Label elements**

Signal word:

WARNING

Hazard Statement:

H320 – Causes eye irritation.

H335 – May cause respiratory irritation.

Precautionary Statement:

P264 – Wash hands and face thoroughly after handling.  
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.  
P271 – Use only outdoors or in a well-ventilated area.

(Prevention):

Precautionary Statement:

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Response):

P337+P313 – If eye irritation persists: Get medical advice/attention.

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 – Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statement:

(Storage):

P403+P233 – Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statement:

(Disposal):

P501 – Dispose of contents/container in accordance with local, state and federal regulations.

**2.3 Other hazards**

None known



## SAFETY DATA SHEET

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### 3. COMPOSITION, INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

Chemical Name:	CAS No.	Concentration [%]
Ammonium sulfate*, with Other ingredients	7783-20-2	99.00
		1.00

\*from non-coke oven production sources.

### 4. FIRST AID MEASURES

#### 4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

**Ingestion:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**Eye contact:** 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.

**Skin contact:** 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.

**Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

#### 4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Risk of damage to eyes. Respiratory irritation.

#### 4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565**

Take container, label or product name with you when seeking medical attention.

**NOTES TO PHYSICIAN:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. FIRE FIGHTING MEASURES

#### 5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Water fog, water spray, carbon dioxide (CO<sub>2</sub>), foam. Do not use water jet as this will spread the fire.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, irritating, corrosive and/or toxic gases may be produced.

#### 5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors, dusts and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

#### 6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.

#### 6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.

Never return spills to original containers for re-use.



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## 7. HANDLING AND STORAGE

### 7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling:

Avoid inhalation of dusts, vapors / spray and contact with eyes, skin and clothing. Do not breathe dusts, mist or vapor. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

### 7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers:

Store in a cool, dry place away from ignition sources. Store in original container. Keep tightly closed. Do not reuse empty container. Do not contaminate water, food or feed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 CONTROL PARAMETERS:

#### OCCUPATIONAL EXPOSURE LIMITS

##### U.S. Workplace Exposure Level (ACGIH) Guides

Components	Type	Value
PNO <sup>C</sup> *	TWA	15 mg/m <sup>3</sup> Total dust

\*Particulates not otherwise classified/regulated

#### Biological limit values

##### ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		

### 8.2 EXPOSURE CONTROLS:

#### Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

#### Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.

Skin Protection: Chemical resistant clothing is recommended. Routinely wash work clothing and protective equipment to remove contaminants. The use of chemical-resistant gloves is recommended when handling undiluted product. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of dusts or vapors, use suitable respiratory equipment. Wear respiratory protection during operations where spraying or misting occurs. In the U.S.A., if respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE :	Crystalline powder.
ODOR:	Virtually none.
ODOR THRESHOLD:	0.1 ppm.
COLOR:	White to off-white.
pH:	5.5 – 6.0 (10% m/v)
MELTING POINT / FREEZING POINT:	No data available
BOILING POINT:	Not applicable
FLASH POINT:	Does not flash
FLAMMABILITY (solid, gas):	Does not support combustion.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	Not applicable.
VAPOR PRESSURE:	No data available.
SOLUBILITY:	Soluble
PARTITION CO-EFFICIENT, n-OCTANOL / WATER:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	Not determined
VISCOSITY:	Not determined
SPECIFIC GRAVITY (Water = 1):	0.56 – 0.72 g/ml
BULK DENSITY:	35 - 45 lbs/ft <sup>3</sup> / 560.6 – 720.8 kg/m <sup>3</sup>

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

#### 10.1 REACTIVITY

Stable

#### 10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

#### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No reactions known under normal use conditions. Will not polymerize.

#### 10.4 CONDITIONS TO AVOID

Heat, open flames, sparks.

#### 10.5 INCOMPATIBLE MATERIALS

Strong oxidizers, bases, chlorates, and nitrates.

#### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May release of oxides of nitrogen, oxides of sulfur, oxides of carbon, ammonia, and other unknown hazardous material may be formed in a fire situation.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 LIKELY ROUTES OF EXPOSURE

Eye contact.

**LC<sub>50</sub> (rat, guinea pig, rabbit, mouse)** No data available.

**LD<sub>50</sub> Oral (rat):** 2,840 mg/kg (Ammonium Sulfate, CAS: 7783-20-2)

**LD<sub>50</sub> Dermal (rat):** No data available

**Acute Toxicity Estimates:** No data available

**Skin Irritation (rabbit):** No data available

**Eye Irritation (rabbit):** Substantial irritant

**Specific Target Organ Toxicity:** Single exposure: May cause respiratory irritation.

**Aspiration:** No data available

**Skin Sensitization (guinea pig):** Not a sensitizer

**Carcinogenicity:** No data available

**Germ Cell Mutagenicity:** No data available

**Interactive Effects:** None known



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### 12. ECOLOGICAL INFORMATION

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#### 12.1 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. This product is not intended for use in aquatic settings.

##### Ecotoxicological Data

Components	Species	Test Results
Ammonium Sulfate (CAS: 7783-20-2)		
96-hour LC <sub>50</sub>	Poecilia reticulata	126 mg/L
96-hour LC <sub>50</sub>	Brachydanio rerio	250 – 480 mg/L
96-hour EC <sub>50</sub>	Daphnia magna	202 mg/L
50-hour EC <sub>50</sub>	Daphnia magna	433 mg/L

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water.

Do not apply when weather conditions favor drift from target area.

#### 12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available.

#### 12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

#### 12.4 MOBILITY IN SOIL

This product is water soluble and may disperse in soil.

#### 12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

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### 13. DISPOSAL CONSIDERATIONS

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#### 13.1 WASTE TREATMENT METHODS

Check local, state and federal regulations prior to disposal. Do not reuse empty bag. Completely empty bag into mix tank or application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Do not contaminate water, food, or feed by storage or disposal.

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### 14. TRANSPORT INFORMATION

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#### 14.1 LAND TRANSPORT

**DOT Shipping Description:** NOT REGULATED.

**U.S. Surface Freight Classification:** ADHESIVES, ADJUVANTS, SPREADERS OR STICKERS (NMFC 4610; CLASS 60)



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**15. REGULATORY INFORMATION**

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS**

**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	X 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:** Not listed

**16. OTHER INFORMATION**

**SDS STATUS:** Format revised; all sections reviewed.

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

**WA REG. NO.:** 34704-50001

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