Material Safety Data Sheet

Spray Grade AMS
Issue Date: 12/10

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL PRODUCT

Spray Grade AMS

Common Chemical Name: Ammonium Sulfate
Synonyms: Diammonium Sulfate
Molecular Formula: \((\text{NH}_4)_2\text{SO}_4\)
Chemical Family: Inorganic Salt
Molecular Weight: 132.1

MANUFACTURED FOR

Fertilizer Company of Arizona, Inc.
2850 South Peart Road
Casa Grande, Arizona 85193-9024

Emergency Phone Numbers

Emergency Telephone: 520.836.7477
Riverside Environmental Services, Inc. (24-hour Emergency Number): 928.783.3803
EPA National Response Center: 800.424.8802

SECTION 2. HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>CAS NO.</th>
<th>%</th>
<th>TLV OR PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfuric Acid Diammonium</td>
<td>7783-20-2</td>
<td>100</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

SECTION 3. PHYSICAL PROPERTIES

Color: White to yellow tint
Form/Appearance: Crystalline Solid
Odor: Not Available

<table>
<thead>
<tr>
<th>Property</th>
<th>TYPICAL</th>
<th>U. of M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity:</td>
<td>Not Available</td>
<td>lbs/cu.ft.</td>
</tr>
<tr>
<td>Bulk Density:</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>pH:</td>
<td>5.0-5.2</td>
<td></td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Freezing Point:</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temp:</td>
<td>235</td>
<td>°C @ 750 mm Hg</td>
</tr>
<tr>
<td>Solubility:</td>
<td>77</td>
<td>g/100 g water @ 20° C</td>
</tr>
<tr>
<td>Solubility in Water Description:</td>
<td>Soluble</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4. FIRE AND EXPLOSION HAZARDS

Flash Point: Not available
Autoignition Temperature: Not available
LEL Flammable Limits: Not available
UEL Flammable Limits: Not available
Extinguishing Media: Water, fog, foam, CO₂, or dry chemical
Unusual Fire & Explosion Hazards: Hydrogen cyanide and ammonia may be released if product is exposed to fire. Fire fighters should wear air-supplied or self-contained breathing apparatus.
Special Firefighting Procedures: Wear positive pressure, self-contained breathing apparatus. Avoid smoke inhalation.

SECTION 5. HEALTH HAZARDS

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin may be a route of entry for liquefied gases.

Acute Overexposure Effects: Ammonium sulfate is moderately irritation to the eyes and mildly irritating to the skin. Systemic ammonia poisoning has been thought to occur after parenteral administration of large doses of some ammonium salts. However, this is not a relevant route of exposure.

Chronic Overexposure Effects: There are no other known effects associated with this material.

First Aid Procedures
Skin: Wash affected areas with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops, get medical attention.
Eyes: Immediately rinse eyes with running water for 15 minutes. If irritation develops, get medical attention.
Ingestion: If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.

Notes to Physicians: None known.

Aggravated Medical Conditions: No data is available which addresses medical conditions that are generally recognized as being aggravated by exposure to this product. Please refer to the Toxicological Information section for effects in animals.

Special Precautions: None
SECTION 6. STABILITY AND REACTIVITY DATA

Stability: Stable under normal conditions.

Incompatibility: Keep away from strong oxidizers, bases, chlorates, and nitrates.

Conditions/Hazards to Avoid: Temperatures >282° C will cause decomposition with release of ammonia and sulfur trioxide.

Hazardous Decomposition/Polymerization: Ammonia, trioxide

Corrosive Properties: Not corrosive.

Oxidizer Properties: Not an oxidizer.

Other Reactivity Data: None known.

SECTION 7. PERSONAL PROTECTIVE EQUIPMENT

Clothing: Gloves, coveralls, apron, and boots as necessary to prevent contact.

Eyes: Chemical dust/splash goggles or full-face shield to prevent eye contact.

As a general rule, do not wear contact lenses when handling.

Respiratory: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).

Ventilation: Use local exhaust to control to recommended P.E.L.

Explosion Proofing: None required.

Other Personal Protection Data: Eyewash fountains and safety showers must be easily accessible.

SECTION 8. SPILL-LEAK/ENVIRONMENTAL

General: Spills should be contained and placed in suitable containers for disposal in a licensed facility. This material is not regulated by RCRA or CERCLA ("Superfund"). Wear appropriate respiratory protection and protective clothing and provide adequate ventilation during clean-up.

Waste Disposal: Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

Container Disposal: Dispose of in a licensed facility. Recommend crushing or other means to prevent unauthorized reuse.

SECTION 9. STORAGE AND HANDLING

General: Temperatures >282° C will cause decomposition with release of ammonia and sulfur trioxide.
SECTION 10.  REGULATORY INFORMATION

TSCA Inventory Status
  Listed on Inventory: YES

SARA – 313 Listed Chemicals:
  CAS: 7783-20-2  Amount: 34%
  NAME: SULFURIC ACID DIAMMONIUM SOLUTION

RCRA Hazardous Waste No.: N/A

CERCLA: NO  Reportable Quantity: (If yes)

State Regulatory Information: (By Component) NJ/PA/MA  RTK
  CAS: 7783-20-2  Amount: 34%
  NAME: SULFURIC ACID DIAMMONIUM SOLUTION

Hazard Ratings:
  HEALTH: 1  REACTIVITY: 0  FLAMMABILITY: 0  SPECIAL: N/A
  (0=Insignificant  1=Slight  2=Moderate  3=High  4=Extreme)

This product is hazardous or contains components which are hazardous according to the OSHA Hazard Communication Standard.

SECTION 11.  TRANSPORTATION

D.O.T. Proper Shipping Name: Not D.O.T. Regulated
D.O.T. Technical Name: N/A
D.O.T. Proper Shipping Description: Not D.O.T. Regulated
D.O.T. Label Required: N/A
D.O.T. Placard Required: N/A

THE ABOVE INFORMATION IS BASED ON DATA OF WHICH WE ARE AWARE AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREON. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATIONS OF THIS INFORMATION, WE DO 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.