

**MATERIAL SAFETY DATA SHEET**

MANUFACTURER: Manufactured for  
ROSEMOUNT ANALYTICAL INC.  
ADDRESS: 851 McKinley Avenue  
Colombus, OH 43222

DATE REVISED: 1-27-11  
PREPARED BY: T. Phillips

TELEPHONE: (614) 224-5345

(1-800-424-9300 24 Hr. CHEMTREC/ CODE: RANA)

**SECTION 1-Product Identification**

**Product Name: Ammonium Molybdate Reagent, Reagent #1 (Red)**

**Synonyms:**

**Part Number: 185-3047-35,185-3047-63**

**SECTION 2-Composition/Information on Ingredients**

| Ingredient(s)      | CAS #      | Percent | Hazardous |
|--------------------|------------|---------|-----------|
| Water              | 7732-18-5  | 87.0    | no        |
| Sulfuric Acid      | 7664-93-9  | 8.0     | yes       |
| Ammonium Molybdate | 11098-84-3 | 5.0     | yes       |

**SECTION 3-Hazards Identification**

Health Rating: 3  
Flammability Rating: 0  
Reactivity Rating: 1

Lab Protective Equip: gloves, safety goggles, Lab Coat

**SECTION 4-First Aid Measures**

INHALATION: Fresh air and normal ventilation. Call a physician if difficulty in breathing persists.

INGESTION: Do not induce vomiting. Give large volumes of milk and water. Call a physician.

SKIN CONTACT: Wash thoroughly with water and soap, call a physician.

EYE CONTACT: Immediately flush with water for at least 15 minutes, call a physician.

**SECTION 5-Fire Fighting Measures**

**Fire: Not Combustible**

**Explosion: The solution is not combustible but will react with other chemicals (hydroxides) and even water.**

**Fire Extinguishing Media: Fight Surrounding Fire**

**Special Information: N/A**

**SECTION 6-Accidental Release Measures**

Wear protective gloves, goggles and dike area, do not walk in or stand in solution. Dilute spill with more water. Neutralize by covering surface with slaked lime, add water to form a slurry. Scoop up and flush with excess water. Observe all laws.

## SECTION 7-Handling and Storage

Warning! May be harmful if swallowed. May cause severe irritation to skin, eyes, respiratory tract and gastrointestinal tract.

Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Avoid breathing mist.

## SECTION 8-Exposure Controls/Personal Protection

Airborne Exposure Limits: N/E  
Ventilation System: Not Required  
Personal Respirators (NIOSH Approved): Not Required  
Skin Protection: Rubber Gloves, lab coat (optional)  
Eye Protection: Safety Goggles

## SECTION 9-Physical and Chemical Properties

Appearance: Clear, colorless liquid  
Odor: N/A  
Solubility: Miscible  
Specific Gravity: 1.0  
pH: 1.6  
Boiling Point: Approximately 220°F/110°C  
Melting Point: N/A  
Vapor Density (Air=1): N/A  
Vapor Pressure (mm Hg): N/E  
Evaporation Rate (BuAc=1): N/E

## SECTION 10-Stability and Reactivity

Stability: Stable  
Hazardous Decomposition Products: Oxides of sulfur at very high temperatures  
Hazardous Polymerization: N/E  
Incompatibilities: Organic acids, metals, fulminates  
Conditions to Avoid: None

## SECTION 11-Toxicological Information:

Routes of absorption: Inhalation, skin, eyes, ingestion  
Threshold limit value: Oral rat LD50: 2140 mg/kg (sulfuric acid)  
Signs, symptoms and effects of exposure:  
Acute: Irritation of eyes, nose, throat, and skin  
Chronic: May cause burns, erode teeth, cause mouth to become sore; eye, nose & throat inflammation.

## SECTION 12-Ecological Information

### Environmental Fate:

When released into the soil, this material may leach into groundwater. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition. When released into the air, this material may be removed from the atmosphere to a moderate extent by dry deposition.

### Environmental Toxicity:

LC50 Flounder 100 to 330 mg/l/48 hr aerated water/Conditions of bioassay not specified; LC50 Shrimp 80 to 90 mg/l/48 hr aerated water

/Conditions of bioassay not specified; LC50 Prawn 42.5 ppm/48 hr salt water /Conditions of bioassay not specified.  
This material may be toxic to aquatic life.

**SECTION 13-Disposal Considerations**

Material must be stored and disposed of in accordance with all local, state and federal laws. Whatever can not be saved for recovery or neutralized should be sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility.

**SECTION 14-Transport Information**

Reportable Quantity: 1000 pounds as 100% Sulfuric Acid (per 49 CFR 172.101 appendix)

UN2796, sulfuric Acid solution, 8, corrosive, PGII, Ltd. Qty.

**SECTION 15-Regulatory Information**

-----\Chemical Inventory Status - Part 1\-----

| Ingredient                | TSCA | EC  | Japan | Australia |
|---------------------------|------|-----|-------|-----------|
| Sulfuric Acid (7664-93-9) | Yes  | Yes | Yes   | Yes       |
| Water (7732-18-5)         | Yes  | Yes | Yes   | Yes       |

-----\Chemical Inventory Status - Part 2\-----

| Ingredient                | Korea | Canada--<br>DSL | NDSL | Phil. |
|---------------------------|-------|-----------------|------|-------|
| Sulfuric Acid (7664-93-9) | Yes   | Yes             | No   | Yes   |
| Water (7732-18-5)         | Yes   | Yes             | No   | Yes   |

-----\Federal, State & International Regulations - Part 1\-----

| Ingredient                | -SARA 302-<br>RQ | TPQ  | -----SARA 313-----<br>List | Chemical Catg. |
|---------------------------|------------------|------|----------------------------|----------------|
| Sulfuric Acid (7664-93-9) | 1000             | 1000 | Yes                        | No             |
| Water (7732-18-5)         | No               | No   | No                         | No             |

-----\Federal, State & International Regulations - Part 2\-----

| Ingredient                | CERCLA | -RCRA-<br>261.33 | -TSCA-<br>8 (d) |
|---------------------------|--------|------------------|-----------------|
| Sulfuric Acid (7664-93-9) | 1000   | No               | No              |
| Water (7732-18-5)         | No     | No               | No              |

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: Yes  
SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
Reactivity: No      (Pure / Liquid)

**Australian Hazchem Code: 2R**

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

**SECTION 16-Other Information**

**Label Hazard Warning:**

DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED

OR CONTACTED WITH SKIN. HARMFUL IF INHALED. AFFECTS TEETH. CANCER HAZARD. STRONG INORGANIC ACID MISTS CONTAINING SULFURIC ACID CAN CAUSE CANCER. Risk of cancer depends on duration and level of exposure.

**NFPA Ratings:** Health:3 Flammability:0 Reactivity:1

\*\*\*\*\*

**Rosemount Analytical Inc., a Division of Emerson Process Management, provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. ROSEMOUNT ANALYTICAL INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, ROSEMOUNT ANALYTICAL INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

.....

**Prepared by: Rosemount Analytical Inc.**  
Phone Number: (949) 757-8500