MATERIAL SAFETY DATA SHEET

EM SCIENCE

11. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

| Manufacturer | Preparation Date.: 11/30/99 |
|---|---|
| EM SCIENCE A Division of EM Industries | Information Phone Number.: 856-423-6300 |
| P.O. Box 70 | Hours: Mon. to Fri. 8:30-5 |
| 480 Democrat Road | Chemtrec Emergency Number: 800-424-9300 |
| Gibbstown, N.J. 08027 | Hours: 24 hrs a day |

Catalog Number(s):

AX0715 AX0721 AX0720 AX0716

Product Name:

Aluminum Potassium Sulfate Synonyms: Alum, Potassium Alum Chemical Family: Inorganic Salt Formula: AlK(SO₄)₂.12H₂O Molecular Weight.: 474.39

2. COMPOSITION / INFORMATION ON INGREDIENTS

| Component | CAS # | Appr % |
|----------------------------|-----------|--------|
| Aluminum Potassium Sulfate | 7784-24-9 | 100% |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Handling care generally in keeping with safe laboratory practices is recommended.

Appearance:

Colorless or white odorless crystals

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

6. ACCIDENTAL RELEASE MEASURES

Spill Response:

Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Exposure / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal as described under Disposal. Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.

7. HANDLING AND STORAGE

Handling & Storage:

Keep container closed. Avoid dusting. Store in a cool, dry, well-ventilated area. Do not breathe dust. Do not get in eyes. Avoid prolonged, or repeated, skin contact.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT: Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:

Material should be handled or transferred in an approved fume hood or with adequate ventilation. Protective gloves (Neoprene, PVC or equivalent) should be worn to prevent skin contact Safety glasses with side shields should be worn at all times.

Work/Hygenic Practices:

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

EXPOSURE GUIDELINES

OSHA - PEL:

| | T | AW | ST | EL | | CL | |
|-----------------|--------------|-----------|-----|-------|-----|-------|------|
| Component | PPM | MG/M3 | PPM | MG/M3 | PPM | MG/M3 | Skin |
| Aluminum Pc | taggiu | m Gulfate | | | | | |
| Aluminum PC | | 2 Al | - | | | | |
| ACGIH - TLV | : | | | | | | |
| | \mathbf{T} | WA | ST | EL | | CL | |
| Component | PPM | MG/M3 | PPM | MG/M3 | PPM | MG/M3 | Skin |
| Aluminum Do | taggiu | m Sulfate | | | | | |

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this indicates that no OSHA or ACGIH exposure limits have been established.

9. PHYSICAL AND CHEMCIAL PROPERTIES

Boiling Point (C 760 mmHg) : Decomposes Melting Point (C) : 92C Specific Gravity (H₂0 = 1) : 1.725 Vapor Pressure (mm Hg) : N/A Percent Volatile by vol (%): N/A Vapor Density (Air = 1) : N/A Evaporation Rate (BuAc = 1): N/A Solubility in Water (%) : 12.2% Appearance : Colorless or white odorless crystals

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization: Does not occur

Hazardous Decomposition: SO_x

Conditions to Avoid: Extreme heat. Dusting (dispersion of fine particles into the air).

Materials To Avoid:

- () Water
-) Acids
-) Bases
- () Corrosives
- () Oxidizers
- (X) Other: None indicated

11. TOXICOLOGICAL INFORMATION

Toxicity Data

None established

Toxicological Findings:

Tests on laboratory animals indicate material may produce adverse reproductive effects. Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers:

Treatment:

Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT Proper Shipping Name:

non-regulated

DOT ID Number :

none

14. REGULATORY INFORMATION

TSCA Statement:

This product is a "Mixture". The CAS numbers of all components are listed on the TSCA Inventory.

| | SARA | SARA | CERCLA | |
|-----------|-------|---------|--------|--|
| Component | EHS | EHS TPQ | RQ | |
| | (302) | (lbs) | (lbs) | |

Aluminum Potassium Sulfate

| OSHA | SARA | DeMinimis |
|------------|------|---------------------|
| Floor List | 313 | for SARA 313 (%) |
| | | |

If there is no information listed on the regulatory information chart, this indicates that the chemical is not covered by the specific regulation listed.

15. OTHER INFORMATION

Comments:

None

NFPA Hazard Ratings:

Health : 2 Flammability : 0 Reactivity : 0 Special Hazards :

Revision History: 8/1/81 2/1/84 1/24/87 10/27/87 1/11/88 3/1/91

- = Revised Section
- N/A = Not Available
- N/E = None Established