

## MATERIAL SAFETY DATA SHEET

ALUM

### IDENTIFICATION

Name Aluminum Sulfate Iron Free (Grades: Dry and 50% solution)

Synonyms Alum

Chemical Family Inorganic Salt

CAS Name Sulfuric Acid, Aluminum Salt (3.2) CAS Registry No. 10043-01-3

I.D. Nos./Codes NIOSH Registry No. BD 17000

Wiswesser Code AL 2 S-02-Q2\*3

Manufacturer/Distributor

Product Information and Emergency Phone  
(302) 774-2421

E. I. du Pont de Nemours & Co., (Inc.)

Address

Transportation Emergency Phone  
(800) 424-9300

Wilmington, Delaware 19898

### HAZARDOUS COMPONENTS

Material(s)

Approximate %

Dry grades - Aluminum Sulfate

~ 56%

50% Solution grade - Aluminum Sulfate

~ 26.5%

### PHYSICAL DATA

Boiling Point, 760 mm Hg

Melting Point Solution 4°C, 39°F

Solution 101°C, 214°F

Dry grades ~ 100°C, 212°F

Specific Gravity

Vapor Pressure Solution mm Hg @ 25°C = 24, @  
37.7°C = 48 mm Hg

Solution = 1.33, dry grades = 1.62

Solubility in H<sub>2</sub>O Solution = complete;

Vapor Density

dry = 38% @ 25°C

Solutions - vapor is water

Evaporation Rate (Butyl Acetate = 1) Solution < 1

% Volatiles by Vol.

Solution ~ 70%

Form Liquid

Appearance Hazy to clear

Color None

Odor None

Solid

Crystalline

White

None

pH Information

50% solution ~ 1-2

Octanol/Water Partition Coefficient

5% solution ~ 3

### FIRE AND EXPLOSION DATA

Flash Point

Method

Autoignition Temperature

Will not burn

Flammable Limits in Air, % by Vol.

Lower

Upper

Fire and Explosion Hazards

Extinguishing Media

Special Fire Fighting Instructions

## REACTIVITY

(solid material decomposes about 100°C)

Compatibility

Cyanides

Decomposition

Will not occur

Polymerization

Will not occur

## HEALTH HAZARD INFORMATION

Exposure Limits

ACGIH TLV® 8-hour time weighted average = 2 mg/kg (soluble aluminum salts)

Routes of Exposure and Effects

Causes eye irritation.

First Aid

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

If swallowed, drink large quantities of water. Call a physician.

## PROTECTION INFORMATION

Ventilation

Maintain adequate ventilation.

Personal Protective Equipment

Coverall chemical safety goggles.

Other Rubber gloves as good hygienic practice. If dusty conditions exist when using dry material, wear dust respirator and a brimmed hat.

## DISPOSAL PROCEDURES

Aquatic Toxicity

Spill, Leak or Release Sweep up dry material. Spills may produce slippery surfaces. Flush area with copious amounts of water.

Waste Disposal Observe Federal, State and Local regulations. See 40 CFR 116. If approved, flush to chemical sewer with copious amounts of water.

## SHIPPING PRECAUTIONS

Transportation Dry grades are not regulated. Proper shipping name for solution is "Corrosive Liquid, NOS". DOT Hazard Class for solution is "Corrosive Material".

Shipping Containers

Solution grades = tank trucks. Dry grades = multi-wall paper bags.

Storage Conditions Keep containers tightly closed. Keep bags dry. Keep solutions at or above 60°F (16°C) to avoid crystallization.

## REFERENCES AND ADDITIONAL INFORMATION

Avoid contact with eyes.

Wash thoroughly after handling.

For more information, refer to: Du Pont Aluminum Sulfate Data Sheet.

DATE: 11

