

GELEST, INC.

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MATERIAL SAFETY DATA SHEET EMERGENCY TELEPHONE CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: ALUMINUM FORMATE, trihydrate - CXAL045

CHEMICAL NAME: ALUMINUM FORMATE, trihydrate

SYNONYMS: FORMIC ACID, ALUMINUM SALT; ALUMINUM TRIFORMATE, trihydrate

CHEMICAL FAMILY: ALUMINUM COMPOUND

FORMULA: C₃H₃O₆Al.3H₂O

HMIS CODES HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 1

INGREDIENTS

IDENTITY CAS NO. %

ALUMINUM FORMATE, trihydrate 7360-53-4 >95 not established

(OSHA PEL, nuisance dust: 15mg/m³)

TLV

PHYSICAL DATA

Melting Point: not determined

Vapor Pressure: not determined

Solubility in water: not determined

Boiling Point: not determined

Specific Gravity: >1 Vapor Density: NA

% volatiles: <1

Molecular Weight: 162.03/216.28

2.03/216.28 Other: NA

Appearance & Color: White to pale yellow powder, very slight odor

FIRE & EXPLOSION DATA

Evaporation rate: NA

Flash Point, COC: NA Autoignition Temp.: not determined

Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale

vapors.

Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

-1-(CXAL045)

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose, LC: Lethal Concentration; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; HMIS: Hazardous Material information System; CAS No.: Chemcial Abstract Service Registration Number Gelest. Inc. © 2008



ENVIRONMENTAL INFORMATION

Spill response: Sweep material and transfer to a suitable container for disposal.

Recommended Disposal: Dispose of as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe eye irritation.

Skin contact: May produce irritation or contact dermatitis. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of dust or particulates may irritate the respiratory tract.

Oral Toxicity: Not determined Chronic Toxicity: Not determined

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Administer oxygen if needed. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

REACTIVITY DATA

Stability: Stable

Conditions to avoid: Strong oxidizers.

Hazardous decomposition products: Organic acid vapors and aluminum oxide fumes.

An explosion of an aqueous solution of aluminum formate after heating in air has been reported.

-2-(CXAL045)



SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended. Respiratory Protection: If exposure exceeds TLV, NIOSH approved dust and mist respirator. Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses. Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

For research use only.

Storage and Handling: Store in sealed containers. Do not allow dust to accumulate in work areas.

TRANSPORTATION

DOT SHIPPING NAME: COMBUSTIBLE SOLID, NOS

DOT HAZARD CLASS: NOT REGULATED

DOT LABEL: NONE REQUIRED DOT ID No: NONE REQUIRED

Prepared by safety and environmental affairs ISSUE DATE CXAL045: 8/8/05 SUPERSEDES: none

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