



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Aluminum Nitrate**

PART NUMBER: 1023

CAS NUMBER: 7784-27-2

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. –No smoking.
P220	Keep/Store away from clothing/.../combustible materials.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash hands and skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Gently wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P370 +P378	In case of fire: Use CO2, dry chemical, or foam for extinction.

POTENTIAL HEALTH EFFECTS: Ingestion and inhalation

EYE CONTACT: Causes severe irritation of the eyes. May cause burns.

SKIN CONTACT: Causes irritation to skin.

INHALATION: Irritating to mucous membranes and upper respiratory tract. May cause coughing, chest pains, and difficulty breathing.

INGESTION: Nausea, vomiting, dizziness, gastroenteritis, abdominal pain, weakness, collapse, and convulsions.

ACUTE HEALTH EFFECTS: Harmful by ingestion or inhalation. Irritant.

CHRONIC HEALTH EFFECTS: No information found.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $Al(NO_3)_3 \cdot 9H_2O$

Molecular Weight: 375.14

CHEMICAL NAME	CAS#	%	ACGIH (TWA)	OSHA (PEL)
Aluminum Nitrate	7784-27-2	100	2 mg/m ³ (as Al)	2mg/m ³ (as AL)

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water (lukewarm if possible) for at least 15 minutes.

Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation or redness persists.

INHALATION: Remove victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance. Give oxygen if deemed necessary. If not breathing administer CPR. Get emergency care immediately.

INGESTION: Give 1-2 glasses of water to drink, provided person is conscious. Seek medical assistance immediately. Keep the victim calm. Do not induce vomiting.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Not applicable

AUTO IGNITION TEMPERATURE: No data

EXPLOSION LIMITS: No data

EXTINGUISHING MEDIUM: Carbon dioxide, powder. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to risk of explosion.

SPECIAL FIRE FIGHTING PROCEDURES: If this product is involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing. Use water spray to cool fire-exposed containers and structures.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit oxides of aluminum and nitrogen.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Powerful oxidizing agents; may ignite oxidizable materials. Contributes to combustion of other materials. Contact with other material may cause fire and/or explosion. May be shock, friction, or heat sensitive. Container explosion may occur under fire conditions or when heated. The sensitivity to static discharge is not available. Emits toxic fumes under fire conditions.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Evacuate area. Avoid raising dust. Use non-sparking tools. Use personal protective equipment.

ENVIRONMENTAL PRECAUTIONS: DO NOT empty into drains. Dispose of in accordance with all waste disposal regulations.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Eliminate all sources of ignition. Sweep up and place in well-marked container for disposal. Ventilate area and wash spill site after material is picked up completely.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Keep container tightly closed. Avoid contact with combustible material may cause fire. Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

CONDITIONS FOR SAFE STORAGE: Store material in a cool, dry, well-ventilated area away from heat and all sources of ignition. Store away from incompatible materials.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EYE PROTECTION: Always wear approved safety glasses with side shields, safety goggles, and face shield when handling a chemical substance in the laboratory.

SKIN PROTECTION: Impervious (rubber, neoprene, PVC)

VENTILATION: Chemical fume hood.

RESPIRATOR: If ventilation is not available, a high efficiency dust respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29CFR 1910.34.

ADDITIONAL PROTECTION: Protection to avoid contact with clothing, shoes (chemical-resistant lab apron, overalls, booties, and sleevelets.)

OTHER PROTECTIVE EQUIPMENT: Eye wash and quick-drench shower facilities should be available in work area. Use in a controlled environment. Do not smoke, eat or drink in area. Avoid prolonged or repeated exposure.

PRECAUTIONS: OXIDIZER IRRITANT. Material is irritating to mucous membranes and upper respiratory tract. Irritating to skin and eyes. May be harmful by inhalation, or ingestion. Avoid contact with reducing agents.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: White crystals

ODOR: None

MOLECULAR WEIGHT: 375.14

MELTING POINT: 73.5° C

SPECIFIC GRAVITY: No data

BOILING POINT: Decomposes @ 130° C

VAPOR PRESSURE: Not applicable

SOLUBILITY IN WATER: Soluble

pH: 2.8-3.2 (50 g/l)

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Hygroscopic. Oxidizer: Contact with combustible/organic material may cause fire.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Keep away from heat and combustible materials.

INCOMPATIBILITY: Strong reducing agents, strong acids, finely powdered metals. Combustible materials.

DECOMPOSITION PRODUCTS: Nitrogen oxides and aluminum oxide fumes.

SECTION 11 TOXICOLOGICAL DATA

CARCINOGENIC EFFECTS: No data
MUTAGENIC EFFECTS: No data
TETRATOGENIC EFFECTS: No data
RTECS# BD1040000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

Harmful to aquatic life at very low concentrations. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local state and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN1438
Aluminum Nitrate
Class 5.1
PG III

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in TSCA inventory
SARA (TITLE 313): Nitrate compounds (Water dissociable)
RCRA STATUS: Meets criteria for nitrates and should be managed as a hazardous waste.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE REVISED: 11/21