

1. Identification of the substance/preparation and of the company/undertaking**1.1 Identification of the product****Product code:** A4018**Product name:** Aluminium Nitrate Nonahydrate**CAS No.:** 7784-27-2**1.2 Recommended use and restriction on use**

General use : for experimental, research and industrial use

Restriction on use : Never drink, Not used except for experimental, research and industrial applications.

1.3 Manufacturer / Supplier / Distributor information**Importer/distributors identification**

Company : ASIA CHEMIE (THAILAND) CO., LTD.

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2. Hazards identification**2.1 GHS Classification**

Serious eye damage/eye irritation: Category1

2.2 GHS label elements**Hazard symbols****Signal words :** Danger**Hazard statements**

H318 Causes serious eye damage.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards which do not result in classification: (NFPA Classification)

Not available

3. Composition/information on ingredients

Chemical Name	Synonyms	CAS No.	Concentration (%)
Aluminum nitrate nonahydrate	Aluminum trinitrate nonahydrate	7784-27-2	100

4. First aid measures**4.1 Eye contact**

- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.

4.2 Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.
- Get medical attention immediately.

4.3 Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Get medical attention immediately.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

4.4 Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.
- Get medical attention immediately.

4.5 Delayed and immediate effects and also chronic effects from short and long term exposure

- Causes eye burns. Causes severe eye damage.

4.6 Notes to physician

- Treat symptomatically.

5. Fire-fighting measures

5.1 Suitable (Unsuitable) extinguishing media

- Avoid use of water jet for extinguishing
- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray

5.2 Specific hazards arising from the chemical

- Keep product and empty container away from heat and sources of ignition.

5.3 Special protective actions for firefighters

- As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Ensure adequate ventilation.
- Use personal protective equipment as required.
- Avoid dust formation.

6.2 Environmental precautions

- If large amounts have been spilled, inform the relevant authorities.
- Prevent runoff and contact with waterways, drains or sewers.

6.3 Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

- Wear personal protective equipment/face protection.
- Ensure adequate ventilation.
- Avoid dust formation.
- Do not get in eyes, on skin, or on clothing.
- Avoid ingestion and inhalation.

7.2 Conditions for safe storage, including any incompatibilities

- Avoid direct sunlight.
- Check regularly for leaks.
- Do not apply any physical shock to container.
- Do not apply direct heat.
- Do not use damaged containers.

8. Exposure controls/personal protection

8.1 Exposure limits

ACGIH TLV

- Not available

OSHA PEL

- TWA: 2 mg/m³

8.2 Engineering controls

- Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

8.3 Individual protection measures, such as personal protective equipment

Respiratory protection

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Eye protection

- Provide an emergency eye wash station and quick drench shower in the immediate work area.
- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.

Hand protection

- Wear appropriate protective glove.

Skin protection

- Wear appropriate protective clothing.

Others

- Not available

9. Physical and chemical properties

A. Appearance	
- Appearance	Solid
- Color	white
B. Odor	odorless
C. Odor threshold	Not available
D. pH	2.5 - 3.5
E. Melting point/Freezing point	73 °C
F. Initial Boiling Point/Boiling Ranges	135 °C
G. Flash point	Not available
H. Evaporation rate	Not available
I. Flammability (solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	Not available
L. Solubility	Not available
M. Vapour density	Not available
N. Specific gravity (Relative density)	Not available
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	375.13
T. Molecular formula	Al(NO ₃) ₃ ·9H ₂ O

10. Stability and reactivity**10.1 Chemical Stability**

- This material is stable under recommended storage and handling conditions.

10.2 Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

10.3 Conditions to avoid

- Avoid: Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with incompatible materials and condition.

10.4 Incompatible materials

- Not available

10.5 Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. Toxicological information**11.1 Information on the likely routes of exposure****Respiratory tracts**

- Not available

Oral

- Not available

Eye · Skin

- Not available

11.2 Delayed and immediate effects and also chronic effects from short and long term exposure**Acute toxicity***** Oral**

- LD50: 3.263 mg/kg Rat – male and female

*** Dermal**

- Not available

*** Inhalation**

- Not available

Skin corrosion/irritation

- Irritating to eyes, respiratory system and skin.

Serious eye damage/irritation

- Not available

Respiratory sensitization

- Not available

Skin sensitization

- Not available

Carcinogenicity

*** IARC**

- Not available

*** OSHA**

- Not available

*** ACGIH**

- Not available

*** NTP**

- Not available

*** EU CLP**

- Not available

Germ cell mutagenicity

- Not available

Reproductive toxicity

- Not available.

STOT-single exposure

- Not available.

STOT-repeated exposure

- Not available

Aspiration hazard

- Not available

12. Ecological information

12.1 Ecotoxicity

Fish

- Not available

Crustaceans

- Not available

Algae

- Not available

12.2 Persistence and degradability

Persistence

- Not available

Degradability

- Not available

12.3 Bioaccumulative potential

Bioaccumulative potential

- Not available

Biodegradation

- Not available

12.4 Mobility in soil

- Not available

12.5 Other adverse effects

- Not available

13. Disposal considerations

13.1 Disposal methods

- It shall be treated by incineration
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable.
- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them.

13.2 Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act
- Dispose of waste in accordance with all applicable laws and regulations.

14. Transport information**14.1 UN No. (IMDG CODE/IATA DGR)**

- 1438

14.2 Proper shipping name

- ALUMINIUM NITRATE

14.3 Hazard Class

- 5.1

14.4 IMDG CODE/IATA DGR Packing group

- III

14.5 Marine pollutant

- Not applicable

14.6 Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE: F-A (General fire schedule)
- EmS SPILLAGE SCHEDULE: S-Q (Oxidizing substances)

15. Regulatory information**15.1 National and/or international regulatory information****POPs Management Law**

- Not applicable

Information of EU Classification*** Classification**

- Not applicable

U.S. Federal regulations*** OSHA PROCESS SAFETY (29CFR1910.119)**

- Not applicable

*** CERCLA Section 103 (40CFR302.4)**

- Not applicable

*** EPCRA Section 302 (40CFR355.30)**

- Not applicable

*** EPCRA Section 304 (40CFR355.40)**

- Not applicable

*** EPCRA Section 313 (40CFR372.65)**

- Not applicable

Rotterdam Convention listed ingredients

- Not applicable

Stockholm Convention listed ingredients

- Not applicable

Montreal Protocol listed ingredients

- Not applicable

16. Other information

Reason for the revision: General update.

Date: 12/5/2014

Revision 5

Date: 16/06/2023

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