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## SAFETY DATA SHEET

SUPPLIER: PRODUITS CHIMIQUES ACP CHEMICALS INC.

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### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**NAME OF PRODUCT:** Aluminum Nitrate Nonahydrate

**SYNONIMS:**

**CAS No:** 7784-27-2

**MOLECULAR WEIGHT:** 375.13

**CHEMICAL FORMULA:**  $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$

#### SUPPLIER/MANUFACTURER AND PREPARATOR:

Produits Chimiques ACP Chemicals, Inc.  
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St-Léonard, QC H1R 1A5  
514-327-0323

**DATE:** May 25, 2016

**EMERGENCY TELEPHONE No.:** (613) 996-6666 (CANUTEC)

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

#### WHMIS Classification

D2B Toxic Material Causing Other Toxic Effects Moderate eye irritant

#### GHS Classification

Acute toxicity, Oral (Category 5)

Serious eye damage/eye irritation (Category 1)

#### GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H303 May be harmful if swallowed.  
H318 Causes serious eye damage.

Precautionary statement(s)

P280 Wear eye protection/ face protection.  
P305 + P351 + P338 +  
P310 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue  
rinsing. Immediately call a POISON CENTER or doctor/ physician.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

**HMIS Classification**

**Health hazard:** 2  
**Flammability:** 0  
**Physical hazards:** 0

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** May be harmful if swallowed.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Aluminium nitrate nonahydrate**

Formula:  $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$   
Molecular weight: 375.13 g/mol  
CAS-No.: 7784-27-2  
EC-No.: 236-751-8  
Index-No.: -  
Concentration:  $\leq 100\%$

**SECTION 4. FIRST AID MEASURES**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**SECTION 5. FIREFIGHTING MEASURES****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Aluminum oxide

**Explosion data - sensitivity to mechanical impact**

No data available

**Explosion data - sensitivity to static discharge**

No data available

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

**Precautions for safe handling**

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

**Aluminium nitrate nonahydrate**

CAS-No.: 7784-27-2

Value	Control parameters	Basis
TWA	2.000000 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required	
TWAEV	2.000000 mg/m <sup>3</sup>	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
TWAEV	2.000000 mg/m <sup>3</sup>	Canada. Ontario OELs
TWA	2 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required	
TWAEV	2 mg/m <sup>3</sup>	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### **Eye protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### **Skin and body protection**

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **Specific engineering controls**

Use mechanical exhaust or laboratory fume hood to avoid exposure.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Appearance**

Form	solid
Colour	colourless

### **Safety data**

pH	2.5 - 3.5 at 50 g/l at 25 °C (77 °F)
Melting point/	

freezing point	Melting point/range: 73 °C (163 °F) - lit.
Boiling point	No data available
Flash point	Not applicable
Ignition temperature	No data available
Auto-ignition	
Temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Density	No data available
Water solubility	No data available
Partition coefficient:	
n-octanol/water	No data available
Relative vapour	
Density	No data available
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available

## SECTION 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

Avoid moisture.

### Materials to avoid

Strong reducing agents, Powdered metals, Strong acids

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NO<sub>x</sub>), Aluminum oxide

### Other decomposition products

No data available

## SECTION 11. TOXICOLOGICAL INFORMATION

## **Acute toxicity**

### **Oral LD50**

LD50 Oral - Rat - 3,671 mg/kg

Remarks: Behavioral: Somnolence (general depressed activity). Gastrointestinal: Changes in structure or function of salivary glands.

### **Inhalation LC50**

No data available

### **Dermal LD50**

No data available

### **Other information on acute toxicity**

No data available

### **Skin corrosion/irritation**

Skin - Rabbit - No skin irritation - OECD Test Guideline 404

### **Serious eye damage/eye irritation**

Eyes - Rabbit - Severe eye irritation - OECD Test Guideline 405

### **Respiratory or skin sensitization**

Guinea pig - Does not cause skin sensitization. - OECD Test Guideline 406

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### **Reproductive toxicity**

Reproductive toxicity - Rat - Oral

Effects on Newborn: Physical.

### **Teratogenicity**

Developmental Toxicity - Rat - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.

Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

Developmental Toxicity - Rat - Oral

Specific Developmental Abnormalities: Musculoskeletal system.

Developmental Toxicity - Rat - Oral

Specific Developmental Abnormalities: Cardiovascular (circulatory) system.

### **Specific target organ toxicity - single exposure (Globally Harmonized System)**

No data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects**

No data available

**Additional Information**

RTECS: BD1050000

**SECTION 12. ECOLOGICAL INFORMATION**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**PBT and vPvB assessment**

No data available

**Other adverse effects**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**



**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14. TRANSPORT INFORMATION****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**SECTION 15. REGULATORY INFORMATION****WHMIS Classification**

D2B Toxic Material Causing Other Toxic Effects Moderate eye irritant

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**SECTION 16. OTHER INFORMATION****Disclaimer**

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