



## SAFETY DATA SHEET

### SECTION 01 - IDENTIFICATION

|  |   |
|--|---|
| <b>Product Identifier</b>  | ALUMINIUM (POWDER) non-coated, -200 mesh  |
| <b>Other identification (Chemical name, Commercial name, Synonymous)</b> | ALUMINUM POWDER ~200 MESH, ALUMINIUM MÉTALLIQUE EN POUDRE, NON ENROBÉ   |
| <b>Product code</b>  | AR-0110   |
| <b>Chemical formula</b>  | Al  |
| <b>Molar weight</b>  | 26.98   |
| <b>Recommended use and Restrictions on use</b>                           | For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes. |
| <b>Supplier</b>  | LABORATOIRE MAT<br>610, rue Adanac<br>Québec<br>Québec<br>G1C 7B7<br>418-660-8666 Mon-Fri 8h-16h<br>www.labmat.com<br>labmat@labmat.com     |
| <b>Emergency phone</b>   | 418-660-8666 Mon-Fri 8h-16h<br>CENTRE ANTI-POISON DU QUÉBEC 800-463-5060  |
| <b>Date SDS</b>  | 2025-09-30  |

## SECTION 02 - HAZARDS IDENTIFICATION

### WHIMS CANADA

- Flammable solids - category 1
- Substances and mixtures which, in contact with water, emit flammable gases - category 1
- Combustible dusts - category 1
- Pyrophoric solids - category 1

### PICTOGRAMS



### Signal Word

DANGER

### Hazards statements (H)

- Flammable solid
- In contact with water releases flammable gases which may ignite spontaneously
- May form combustible dust concentrations in air
- Catches fire spontaneously if exposed to air

### Precautionary statements (P)

- Keep away from heat, sparks, open flames, hot surfaces. — No smoking.
- Ground and bond container and receiving equipment.
- Use explosion-proof equipment.
- Wear protective gloves (nitrile, butyle, neoprene), protective clothing and eye and face protection.
- In case of fire: Use a class D fire extinguisher or special powder for metal fires; do not use water to extinguish.
- Do not allow contact with water
- Handle under inert gas. Protect from moisture
- IF ON SKIN: Immerse in cool water then wrap in wet bandages.
- Brush off loose particles from skin.
- Store in a dry place. Store in a closed container.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.
- Do not allow contact with air.
- Keep container tightly closed.

### Other dangers

NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)

**Health** 1  
**Fire** 3  
**Reactivity** 0  
**Special danger** EAU

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

| Component | No. CAS   | % Weight |
|-----------|-----------|----------|
| Aluminium | 7429-90-5 | <=100%   |

## SECTION 04 - FIRST AID MEASURE

|  |   |
|--|---|
| <b>Eye contact</b>   | Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.                        |
| <b>Skin contact</b>  | Wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation persists, seek medical attention.   |
| <b>Inhalation</b>  | Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.   |
| <b>Ingestion</b>   | If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.                            |
| <b>Most important symptoms and effects (acute and delayed)</b>         | Main symptoms of high exposure: Irritation of the respiratory system. Eyes irritation. Skin sensitizer. Neurological disorders. Pulmonary fibrosis. Headaches. Ref. section 11. |
| <b>Immediate medical attention and special treatment, if necessary</b> | Treat according to symptoms. Show this sheet to the attending physician.  |

## SECTION 05 - FIREFIGHTING MEASURES

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Use only a class D fire extinguisher to extinguish the fire.  |
| <b>Unsuitable extinguishing media</b>                                | Do not use water.   |
| <b>Combustion products</b>   | Hazardous combustion products formed under fire conditions: Aluminum oxides.  |
| <b>Specific hazards of the dangerous product</b>                     | Pyrophoric. May form combustible dust concentrations in the air. May react violently with incompatible products (Ref Section 10).   |
| <b>Special protective equipment and precautions for firefighters</b> | Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus. |

## SECTION 06 - ACCIDENTAL RELEASE MEASURES

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency measures</b> | Evacuate personnel to safe areas. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection if necessary or for larger spills. Cut off all sources of ignition. Avoid dust formation. Avoid breathing dust. |
| <b>Methods and materials for containment and cleaning up</b>             | Pick up with a shovel or broom, taking care not to scatter dust. Avoid contact with water. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Discharge into the environment must be avoided.   |

## SECTION 07 - HANDLING AND STORAGE

|                                    |   |
|------------------------------------|---|
| <b>Conditions for safe storage</b> | Store in a cool, dry, and well-ventilated place. Keep away from heat and sources of ignition. Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges. Keep container tightly closed and store away from heat, water, moisture, and incompatible products (ref. section 10).  |
| <b>Methods of handling</b>         | Avoid contact with water. Keep away from heat and sources of ignition. Avoid the formation of dust. Avoid ingestion and inhalation. Avoid contact with eyes, skin and clothing. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use. |

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### WORKPLACE CONTROL PARAMETERS

| Components | CAS-No.  | Control parameters                          | Value   | Basis   |
|------------|--|---|---|---|
|            |  | TWA   | 10mg/m <sup>3</sup> Pyro powder, as Al<br>5mg/m <sup>3</sup> Metal dust | 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 |   |   |   |
|            |  | TWA   | 5mg/m <sup>3</sup> Poussières respirables                               | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
|            |  | TWA   | 1mg/m <sup>3</sup> Respirable particulate matter                        | Canada. Ontario Reg.833   |
|            |  | No occupational exposure limits established | -   | Canada. British Columbia OEL  |

|                            |   |
|----------------------------|---|
| <b>Data origin</b>         | CNESST Alberta OELs. Ontario Regulation 833. Worksafebc.com   |
| <b>Respiratory</b>         | If work under the hood is not possible, or if the permissible levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.   |
| <b>Gloves</b>              | Handle with protective gloves. Suggested material: Nitrile. Butyl. Neoprene. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection. |
| <b>Eyes</b>                | Safety goggles with safety shutters.  |
| <b>Shoes</b>               | Use safety shoes.   |
| <b>Clothes</b>             | Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  |
| <b>Engineering control</b> | Use fan. Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.   |

## SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

|  |                                |
|--|--------------------------------|
| <b>Physical state</b>                        | Solid                          |
| <b>Color</b>                                 | Gray                           |
| <b>Odour</b>                                 | Data not available             |
| <b>Odour threshold</b>                       | Data not available             |
| <b>Melting point and freezing point</b>      | 660°C                          |
| <b>Boiling point</b>                         | 2327-2519°C                    |
| <b>Flammability</b>                          | Yes                            |
| <b>Lower flammable / Explosive limit</b>     | Data not available             |
| <b>Upper flammable / Explosive limit</b>     | Data not available             |
| <b>Flash point</b>                           | Data not available             |
| <b>Auto-ignition temperature</b>             | Data not available             |
| <b>Decomposition temperature</b>             | Data not available             |
| <b>pH</b>                                    | Not applicable                 |
| <b>Kinematic viscosity</b>                   | Not applicable                 |
| <b>Solubility</b>                            | Insol in water (<20µg/L @20°C) |
| <b>Partition coefficient water/n-octanol</b> | Data not available             |
| <b>Vapour pressure</b>                       | Data not available             |
| <b>Relative density</b>                      | 2.7g/cm <sup>3</sup>           |
| <b>Vapour density</b>                        | Data not available             |
| <b>Particle characteristics</b>              | Powder ~200 mesh               |

## SECTION 10 - STABILITY AND REACTIVITY

|   |   |
|---|---|
| <b>Reactivity</b>                         | May react violently with incompatible substances.   |
| <b>Chemical stability</b>                 | Moisture sensitive. Air sensitive.  |
| <b>Possibility of hazardous reactions</b> | May form combustible dust concentrations in the air. May react violently with incompatible substances.  |
| <b>Conditions to avoid</b>                | Avoid moisture. Exposure to air. Avoid contact with incompatible materials. Heat, flames and sparks.  |
| <b>Incompatible materials</b>             | Oxydants. Halogens. Halogenated hydrocarbons. Nitrates. Mercury. And its compounds. Sulfates. Metal salts. Exothermic reactions with: Metal oxides. May form hydrogen (an explosive gas) with: Water. Strong acids. Strong bases. Burns with: Sulfides. Nitric oxide. Nitrogen peroxide. Iodine. Can form an explosive mixture with: Ammonium nitrate. Ammonium persulfate. Metals halogenates. Chlorates and perchlorates. Silver chloride. Liquid oxygen. Oxidizes with: Air. |
| <b>Hazardous decomposition products</b>   | Aluminium oxides.   |

## SECTION 11 - TOXICOLOGICAL INFORMATION

### ALUMINIUM (POWDER) NON-COATED, -200 MESH

|   |   |
|---|---|
| Routes of exposure                        | Ingestion, inhalation and skin contact.   |
| Acute exposition effects / symptoms:      | By exposure route below.  |
| - Eyes                                    | Irritation.   |
| - Skin                                    | Irritation.   |
| - Inhalation                              | Cough. Irritation of the mucous membranes and respiratory tract. Pulmonary fibrosis.  |
| Acute toxicity (Ingestion)                | Nausea and vomiting. Gastrointestinal disorders. Corrosion of the digestive tract.  |
| Chronic exposure effects / symptoms       | Aluminosis (aluminum pneumoconiosis) si inhalation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. |
| DL50 (specify species and route of entry) | LD50 Oral - Rat - >5000mg/kg. LD50 Dermal - Data not available.   |
| CL50 (specify species and route of entry) | LC50 Inhalation - Rat - 4 h - 888 mg/m <sup>3</sup> .   |

## SECTION 12 - ECOLOGICAL INFORMATION

### ALUMINIUM (POWDER) NON-COATED, -200 MESH

|                               |   |
|-------------------------------|---|
| Ecotoxicity                   | Data not available.   |
| Persistence and degradability | Not applicable for inorganic substances.                              |
| Bioaccumulative potential     | Data not available.   |
| Mobility in soil              | Is not likely mobile in the environment due its low water solubility. |
| Other adverse effects         | Data not available.   |

## SECTION 13 - DISPOSAL CONSIDERATIONS

|                        |  |
|------------------------|--|
| Waste Disposal Method  | Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company. |
| Contaminated Packaging | Dispose of as unused product.  |

## SECTION 14 - TRANSPORT INFORMATION

|                            |                                |
|----------------------------|--------------------------------|
| UN Number                  | 1396                           |
| UN Proper shipping name    | ALUMINIUM EN POUDRE NON ENROBÉ |
| Transport hazard class(es) | Matières hydroréactives 4.3    |
| Packing group              | III                            |
| Limited quantity index     | 1 kg                           |
| ERAP Index                 | -                              |
| Special precautions        | -                              |

## SECTION 15 - REGULATORY INFORMATION

### WHIMS CANADA

- Flammable solids - category 1
- Substances and mixtures which, in contact with water, emit flammable gases - category 1
- Combustible dusts - category 1
- Pyrophoric solids - category 1

## SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail

NIH: National institute of health (U.S. National Library of Medicine)

ECHA: Agence Européenne de Chimie

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

VECD: Valeur d'exposition courte durée

VEMP: Valeur d'exposition moyenne pondérée

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TLV : Threshold limit value

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

RSST: Règlement sur la santé et sécurité au travail (Québec)

INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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