



Products: HIDRALUM 10 TM

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1. Identification

Product identifier: Aluminum Hydroxide

Other means of identification: FDS-03

Recommended use of the chemical: Flame retardant, mineral filler, production of aluminum sulfate and polyaluminum chloride (PAC).

Restrictions on use of the chemical: This product should only be used for the indicated uses.

Supplier: ALPHALUM LTDA

Address: Avenida João Pinheiro, 3665, Sala Alopap

Address line 2: Poços de Caldas/MG - Brazil ZIP Code: 37.701-386

Contact phone: +55 (19) 99215-6187

Emergency phone: +55 (19) 99215-6187

2. Hazard identification

Classification of the substance or mixture: Not classified as hazardous according to ABNT NBR 14725-2:2023.

Label Elements

Signal Words: Not applicable

Hazard Statements: Not applicable

Precautionary Statements: Not applicable

Pictogram: Not applicable

3. Composition/information on ingredients

Chemical name: $\text{Al}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$

Percentage: >99.0%

Synonym: Dialuminium trioxide trihydrate, aluminum hydroxide

CAS No.: 21645-51-2

TLV: 5 mg/Nm³

Composition comments: The full composition may include some components classified as non-hazardous. The product contains low concentrations of silicon, calcium, magnesium and iron oxides.

4. First-aid measures

Eye contact: Rinse the eyes with plenty of water or saline solution for at least 10 to 15 minutes. Seek medical assistance. Seek medical attention. Take this SDS with you.

Skin contact: Wash the skin immediately with plenty of water and soap. Seek medical attention if irritation develops or persists. Take this SDS with you.

Inhalation: Move to fresh air. Check the airways, breathing and pulse. If breathing is difficult, give artificial respiration. Provide cardiopulmonary resuscitation to persons without pulse or breathing. Consult a physician. Take this SDS with you.

Ingestion: If the product is swallowed, rinse the mouth with water. Amounts of up to 30 ml for children and 250 ml for adults are recommended. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting. Consult a physician. Take this SDS with you.



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5. Firefighting measures

Specific hazards of the substance or mixture: Not applicable.

Suitable extinguishing media: It is a non-combustible and non-flammable material.

Unsuitable extinguishing media: None known.

Special protective measures for firefighters: Not applicable.

6. Accidental release measures

Personal precautions: Isolate the area and mark the spill site. Avoid ingestion and inhalation, and contact with eyes and skin.

Personal protective equipment: Eyes – fully sealed safety goggles with a certificate of approval in accordance with NR06. Face: Not applicable. Skin: Wear impermeable clothing with a certificate of approval for chemicals and impermeable boots. Respiratory protection: P2

Environmental risks: Contain the spill to prevent the product from reaching sewers, storm drains or bodies of water. In case of large volumes or environmental risk, notify the local environmental agency.

Emergency procedure: Identify the location and volume of the leak. Assess whether there are immediate risks to people's physical integrity or environmental risks. Isolate and mark the area. Prevent access by people.

Personal protective equipment for emergency responders: Impermeable gloves (PVC or nitrile), fully sealed safety goggles, impermeable boots and apron, mask with P2 filter.

Environmental precautions: Use physical barriers such as absorbent blankets, or containment with sand or sawdust. Prevent the product from reaching drains, gutters or bodies of water.

Methods and materials for containment and cleaning up: Collect the product with shovels or equivalent. Store in a closed, labeled plastic or metal container. Wash the area with a controlled amount of water.

7. Handling and storage

Safe handling: Avoid contact with eyes, clothing and skin. Use suitable personal protective equipment (PPE): impermeable gloves (PVC or nitrile), fully sealed goggles, half-face mask with P2 filter if mists are formed.

Conditions for safe storage: Store in a covered, dry, ventilated place with an impermeable floor to prevent contamination and degradation of the product.

Keep containers tightly closed and properly labeled.

8. Exposure controls/personal protection

Control parameters: Provide adequate ventilation to comply with the limits set by the Association Advancing Occupational and Environmental Health (ACGIH).

Personal protective measures

- **Eye/face protection:** Fully sealed safety goggles.
- **Respiratory protection:** If mist or dust is generated, use a mask with a P2 filter.
- **Skin protection:** If there is a risk of skin contact, wear impermeable clothing, PVC or nitrile gloves and impermeable boots.
- **Protection against thermal hazards:** Not applicable.

Engineering control measures: Ensure adequate ventilation in handling areas, especially in enclosed areas or where the product is agitated. In processes that generate mists or splashes, use local exhaust systems. Keep floors non-slip and with adequate drainage to prevent accumulation and slipping.



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9. Physical and chemical properties

Physical state: Solid.

Odor: Odorless

Color: White, light beige or yellowish, depending on purity grade.

Melting/freezing point: Not applicable.

Evaporation rate: Not applicable.

Boiling point or initial boiling point and range: Not applicable (decomposes before boiling).

Decomposition temperature: Approximately 300°C.

Flammability (solid, gas): Not applicable.

Auto-ignition temperature: Not applicable.

Vapor pressure: Not applicable.

Vapor density: Not applicable.

Solubility: Insoluble in water, soluble in strong acids and bases.

pH: less than or equal to 12.

Density: 2.43 g/cm³.

Bulk density: 0.2 – 1.25 g/cm³.

Viscosity: Not applicable.

Partition coefficient (n-octanol): Not applicable.

Other physicochemical parameters: Solid, amphoteric inorganic substance. Reacts with strong acids and bases, forming salts or aluminates. Stable up to approximately 300°C. Slightly hygroscopic. May form fine dust with a risk of electrostatic charge build-up. Has no oxidizing or reducing properties. Not flammable.

10. Stability and reactivity

Reactivity and chemical stability: Chemically inert product under normal conditions of use and storage.

Possibility of hazardous reactions: No hazardous reactions are known under proper use.

Incompatible materials: Strong acids, concentrated strong bases and strong oxidizing agents. These substances may react with the product, forming soluble compounds or releasing heat. Avoid exposure to excessive moisture and high temperatures.

Hazardous decomposition products: Not applicable.

11. Toxicological information

Specific target organ toxicity (single exposure): Not classified as hazardous to specific target organs by single exposure.

Specific target organ toxicity (repeated exposure): There are no reports of relevant systemic toxicity from repeated occupational exposure.

Acute toxicity: > 5000 mg/Kg (rats) – low toxicity.

Aspiration hazard: Not classified as an aspiration hazard.

Corrosivity: Non-corrosive product.

Eye damage and irritation: May cause mild, reversible irritation.



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Skin irritation: Mild irritation possible with prolonged exposure.

Respiratory or skin sensitization: Does not cause sensitization.

Chronic toxicity: Not applicable.

Carcinogenicity: Not classified as carcinogenic.

Germ cell mutagenicity: There is no conclusive evidence of adverse effects.

Effects on reproduction and lactation: There is no conclusive evidence of adverse effects.

Other information: Not applicable.

12. Ecological information

Ecotoxicity: Product not classified as hazardous to the aquatic environment.

Persistence and degradability: Not biodegradable, but also not persistent in the environment.

Bioaccumulation: Low bioaccumulative potential.

Mobility in soil: Low mobility.

Other adverse effects: No known adverse effects on the ozone layer. Avoid discharging into bodies of water without treatment, as it may temporarily affect the chemical balance of the environment.

13. Disposal considerations

Recommended disposal methods

- **Product:** Should be reused or recycled whenever possible, especially in industrial processes.
- **Packaging:** Packaging that is not contaminated with other hazardous substances may be recycled or reused. If contaminated, it must be treated as Class I or II waste, in accordance with local legislation.
- **Other recommendations:** Do not dispose of in sewers, storm water, natural soil or bodies of water. Follow the current National Solid Waste Policy (PNRS), CONAMA Resolution No. 313, ANVISA RDC resolution and specific state/municipal standards. Follow ABNT NBR 10004 on solid waste classification.

14. Transport information

National or international land regulations (rail and road): Not applicable.

Waterway (sea, river, lake): Not applicable.

Air: Not applicable.

UN number: Not applicable

Proper shipping name: Trade name according to the customer's specification.

Hazard number: Class II.

Packing group: Not applicable.

Environmental hazard: Inert.



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15. Regulatory information

This Safety Data Sheet (SDS) was prepared in accordance with ABNT NBR 14725-2:2023.

The inventory name by country or region is listed below.

Standard	Subject/Topic
NBR 14725-1	Terminology
NBR 14725-2	Hazard Classification
NBR 14725-3	Labeling
NBR 14725-4	Safety Data Sheet
NR 26	MTE Ordinance No. 229/2011

ANVISA and IBAMA

REACH (EU) – Regulation (EC) No. 1907/2006

OSHA (USA) – HazCom 2012

WHMIS (Canada) – Workplace Hazardous Materials Information System

16. Other information

The information contained in this Safety Data Sheet is based on our current state of knowledge and is intended solely to describe the product in terms of health, safety and the environment.

The following were used as references: ABNT NBR 14725-4:2023, the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and specialized technical literature.

This information is provided in good faith, with the aim of guiding safe practices for handling, storage, transport and disposal of the product.

However, it does not constitute a legal guarantee of specific properties or of fitness for particular purposes.

It is the user's responsibility to ensure the suitability and correct application of the information according to their actual conditions of use. In case of conflict, the applicable legal and regulatory requirements prevail.

SDS history: Created on 01/12/2025.

Prepared by: Alphalum technical manager.

References:

- ABNT NBR 14725-4:2023 – Chemical products – Information on safety, health and the environment – Part 4: Safety data sheet.
- Globally Harmonized System of Classification and Labelling of Chemicals (GHS) – UN, 9th Revision, 2021.
- European Chemicals Agency (ECHA) – Substance Information – Aluminium oxide [CAS 1344-28-1].
- NIOSH Pocket Guide to Chemical Hazards – Aluminium oxide, U.S. Department of Health and Human Services.