

Safety Data Sheet **ALUMINIUM HYDROXIDE**

SDS no. 9P7D62K1 • Version 1.0 • Date of issue: 2023-11-10

SECTION 1: Identification

GHS Product identifier

Product name ALUMINIUM HYDROXIDE

Other means of identification

Alumina trihydrate
Aluminium hydrate
Hydrated alumina
Hydrated aluminium oxide
Hydrargillite
ALUMINIUM HYDROXIDE LR

Recommended use of the chemical and restrictions on use

Glass, ceramics, iron-free aluminum and aluminium salts, manufacture of activated alumina, base for organic lakes, flame retardants, mattress batting, cosmetics, paper coating, filler, rubber reinforcing agent, ion exchanger, emulsifier, mordant in dyeing, filtering medium, adsorbent, chromatography, printing inks, waterproofing fabrics, detergents, lubricants, packaging materials, water purification, antacid, toothpaste, glass, fireclay and pottery; laboratory reagent.

Supplier's details

| | |
|-----------|---|
| Name | ChemSupply Australia Pty Ltd |
| Address | 38-50 Bedford Street 5013 Gillman South Australia Australia |
| Telephone | 08 8440 2000 |
| email | www.chemsupply.com.au |

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as non-Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

Not a hazardous substance or mixture.

GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 78

Components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

| Component | CAS no. | Concentration |
|---|------------|---------------------|
| Aluminum hydroxide (EC no.: 244-492-7) | 21645-51-2 | 99 - 100 % (weight) |
| CLASSIFICATIONS: No data available. HAZARDS: No data available. | | |

SECTION 4: First-aid measures

Description of necessary first-aid measures

| | |
|-------------------------|--|
| General advice | First Aid Facilities: Maintain eyewash fountain in work area. |
| If inhaled | Remove victim to fresh air. Employ artificial respiration if indicated. Seek medical attention. |
| In case of skin contact | Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice. |
| In case of eye contact | Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist. |
| If swallowed | Rinse mouth thoroughly with water immediately. Give water to drink. DO NOT induce vomiting. Seek medical attention. |

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically based on judgement of doctor and individual reactions of the patient.

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical

Material does not burn.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms. Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid generating and inhaling dust. Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Store in well ventilated area. Keep containers securely sealed and protected against physical damage. Keep container tightly closed

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Wear suitable protective clothing to prevent skin contact. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or

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planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

| | |
|--|---|
| Physical state | Solid |
| Appearance | White crystalline powder, balls or granules. |
| Color | No data available. |
| Odor | Odourless. |
| Odor threshold | No data available. |
| Melting point/freezing point | 300 °C |
| Boiling point or initial boiling point and boiling range | No data available. |
| Flammability | No data available. |
| Lower and upper explosion limit/flammability limit | No data available. |
| Flash point | No data available. |
| Explosive properties | No data available. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | No data available. |
| Oxidizing properties | No data available. |
| pH | ~ 8 - 9 (100 g/L, H ₂ O, 20 °C) (10% slurry) |
| Kinematic viscosity | No data available. |
| Solubility | Solubility in Water: Insoluble. Solubility in Organic Solvents: Insoluble in alcohol. |
| Partition coefficient n-octanol/water (log value) | No data available. |
| Vapor pressure | < 0.1 hPa (20 °C) |
| Evaporation rate | No data available. |
| Density and/or relative density | Specific Gravity: 2.42 (@ 20 °C) |
| Relative vapor density | No data available. |
| Particle characteristics | No data available. |

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Soluble in strong acids and strong alkalis. Absorbs acids and carbon dioxide. Forms a gel (Al₂O₃.xH₂O) on long contact with water. Releases water on heating.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable.

Possibility of hazardous reactions

Contact with strong acids forms aluminium salts. Contact with strong bases forms aluminates. Contact with chlorinated rubber at elevated temperatures may cause violent reaction.

Conditions to avoid

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Contact with strong acids, strong bases, heat, fire

Incompatible materials

Strong acids, strong alkalis, chlorinated rubber and bismuth hydroxide.

Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Ingestion: May be harmful if swallowed in large quantity. May cause nausea, abdominal irritation, pain, constipation and vomiting.

Inhalation: Dust may cause irritation to the nose and throat due to abrasion. High concentrations of dust may cause irritation to respiratory tract and lungs.

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/irritation

Irritating to eyes.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

This product may contain a small proportion of respirable crystalline silica as quartz. Crystalline silica has been classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1) and may lead to silicosis or other lung diseases on prolonged exposure.

Reproductive toxicity

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

Chronic Effects: Repeated or prolonged skin contact may cause drying and cracking with possible dermatitis.

Ingestion of large quantities for prolonged periods may cause phosphate depletion, especially if phosphate intake is low. This may cause loss of appetite, muscle weakness, muscular disease and softening of the bones.

A link between aluminium and Alzheimer's disease, degenerative brain disease, has been suggested.

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Long term exposure to high dust concentrations may cause changes in lung function (pneumoconiosis) caused by <0.5µm particles penetrating and remaining in the lung. Prime symptom is breathlessness with lung shadows on x-ray.

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.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)