

Safety Data Sheet ALUMINIUM OXIDE Calcined

SDS no. 33N3VJZY • Version 1.0 • Date of issue: 2023-11-10

SECTION 1: Identification

GHS Product identifier

Product name ALUMINIUM OXIDE Calcined

Other means of identification

Aluminum trioxide, Alumina, Anti-bumping granules, Corundum
ALUMINIUM OXIDE Calcined LR
Aluminium Oxide Calcined AR
ANTI-BUMPING GRANULES TG

Recommended use of the chemical and restrictions on use

Abrasives, filler in varnishes, paints and resins, polishing agent, food additive (dispersing agent), manufacture of aluminium alloys, refractories, ceramics, crucibles and laboratory wares, spark plugs, dental cements, glass, steel, coatings for steel, electrical insulators and resistors, heat-resistant fibers, catalyst and catalyst supports, paper, adsorbant for gases and water vapours, fluxes, light bulbs, artificial gems, chromatographic analysis and laboratory reagent.

Additional information: Activated' aluminium oxides for chromatography and drying are gamma-alumina or hydrated forms.

Supplier's details

Name ChemSupply Australia Pty Ltd
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Australia

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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: 101.96

[AS] Composition, information on ingredients: Product AL071 Aluminium oxide may contain <1% of respirable silica in the form of quartz.

Components

Component	CAS no.	Concentration
Aluminum oxide (EC no.: 215-691-6)	1344-28-1	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. If breathing has stopped, apply artificial respiration. Seek medical advice if effects persist.
In case of skin contact	Wash with plenty of soap and water. Seek medical advice if effects persist.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
If swallowed	Rinse mouth thoroughly with water immediately. Give water to drink. DO NOT induce vomiting. Seek immediate medical assistance.

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. Not a fire hazard.

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 dust formation and avoid breathing dust.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid generation or accumulation of dusts. Use with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Keep containers closed at all times. Keep in a well-ventilated place

Store at room temperature (15 to 25 °C recommended).

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 and gloves 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

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be

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made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	White balls, lumps or powder.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	2045 °C
Boiling point or initial boiling point and boiling range	2980 °C
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	~ 10.0 (20% slurry)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Insoluble.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 3.96
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: Moh's hardness: 8.8 - very hard
Difficultly soluble in mineral acids and strong alkali.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable.

Possibility of hazardous reactions

[Aluminium oxide reacts violently with chlorine trifluoride, producing flame. Contact with ethylene oxide may cause violent polymerisation.

Conditions to avoid

Exposure to moisture and incompatibles.

Incompatible materials

Chlorine trifluoride and ethylene oxide. Halogen-halogen compounds, halogen oxides, fluorine, hydrogen halides, nitrates, vinyl compounds. Strong acids and strong bases.

Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Aluminium oxide does not cause permanent changes in lung structure and function as indicated by animal studies.

Ingestion: May be harmful if swallowed. Ingestion of large quantities may cause gastrointestinal tract irritation. Symptoms include nausea and vomiting.

Inhalation: Inhalation of dust may cause irritation and drying of the respiratory tract after exposure to high concentrations. Dust deposited in nose and throat may cause mild irritation due to abrasion with symptoms including coughing, sneezing, vomiting, cyanosis, pulmonary edema and shortness of breath.

Skin corrosion/irritation

May cause mild irritation to the skin by abrasion with acute effects of dryness, redness and pain. May be harmful if absorbed through skin.

Serious eye damage/irritation

Dust deposited in the eyes may cause irritation due to abrasion.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

Product AL071 may contain a small proportion of crystalline silica as quartz (<1%). Crystalline silica has been classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1). Furthermore crystalline silica can cause silicosis or other lung disease on prolonged exposure.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

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: Aluminium oxide dust may accumulate in the lungs if high concentrations are inhaled. There have been no reports in the literature of health effects in workers arising from long term exposure to this substance, and no comprehensive human studies have been conducted. No animal studies have been conducted for long term effects.

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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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)