



Infosafe No™	1CH00	Issue Date : November 2018	RE-ISSUED by CHEMSUPP
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Product Name : **ALUMINIUM OXIDE Calcined**

Not classified as hazardous

**1. Identification**

<b>GHS Product Identifier</b>	ALUMINIUM OXIDE Calcined		
<b>Company Name</b>	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)		
<b>Address</b>	38 - 50 Bedford Street GILLMAN SA 5013 Australia		
<b>Telephone/Fax Number</b>	Tel: (08) 8440-2000 Fax: (08) 8440-2001		
<b>Recommended use of the chemical and restrictions on use</b>	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.		
<b>Other Names</b>	<u>Name</u>	<u>Product Code</u>	
	Aluminum trioxide, Alumina, Anti-bumping granules, Corundum		
	ALUMINIUM OXIDE Calcined LR	AL071	
	Aluminium Oxide Calcined AR	AA071	
	ANTI-BUMPING GRANULES TG	AT285	
<b>Additional Information</b>	'Activated' aluminium oxides for chromatography and drying are gamma-alumina or hydrated forms.		
<b>Other Information</b>	Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.		

**2. Hazard Identification**

<b>GHS classification of the substance/mixture</b>	Not classified as hazardous according to the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004) 3rd Edition, Safe Work Australia.
<b>Precautionary statement – Prevention</b>	Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG). P260 Do not breathe dust.

**3. Composition/information on ingredients**

<b>Composition, information on ingredients</b>	Product AL071 Aluminium oxide may contain <1% of respirable silica in the form of quartz.			
<b>Chemical Characterization</b>	Solid			
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u> <u>Risk Phrase</u>
	Aluminium oxide	1344-28-1	99-100 %	
<b>Other Information</b>	Aluminium oxide exists in several other forms: Boehmite and Diaspore (Al <sub>2</sub> O <sub>3</sub> .H <sub>2</sub> O) and Gibbsite and Bayerite (Al <sub>2</sub> O <sub>3</sub> .3H <sub>2</sub> O).			

**4. First-aid measures**

<b>Inhalation</b>	Remove victim to fresh air. If breathing has stopped, apply artificial respiration. Seek medical advice if effects persist.
<b>Ingestion</b>	Rinse mouth thoroughly with water immediately. Give water to drink. DO NOT induce vomiting. Seek immediate medical assistance.
<b>Skin</b>	Wash with plenty of soap and water. Seek medical advice if effects persist.
<b>Eye contact</b>	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.



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<b>First Aid Facilities</b>	Maintain eyewash fountain and safety shower in work area.
<b>Advice to Doctor</b>	Treat symptomatically.
<b>Other Information</b>	For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

**5. Fire-fighting measures**

<b>Suitable extinguishing media</b>	Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
<b>Specific hazards arising from the chemical</b>	Material does not burn. Not a fire hazard.
<b>Precautions in connection with Fire</b>	Use suitable protective equipment for surrounding fire.

**6. Accidental release measures**

<b>Personal Precautions</b>	Avoid dust formation and avoid breathing dust.
<b>Personal Protection</b>	Wear protective clothing specified for normal operations (see Section 8)
<b>Clean-up Methods - Small Spillages</b>	Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

**7. Handling and storage**

<b>Precautions for Safe Handling</b>	Avoid generation or accumulation of dusts. Use with adequate ventilation.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a cool, dry place. Keep containers closed at all times. Keep in a well-ventilated place
<b>Storage Temperatures</b>	Store at room temperature (15 to 25 °C recommended).

**8. Exposure controls/personal protection**

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Aluminium oxide	-	-	10	-	
<b>Other Exposure Information</b>	No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m3. All atmospheric contamination should be kept to as low a level as is workable. A time weighted average (TWA) concentration for Quartz of 0.1 mg/m3 has been established by Safe Work Australia.					
<b>Appropriate engineering controls</b>	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.					
<b>Respiratory Protection</b>	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 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.					
<b>Eye Protection</b>	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.					
<b>Hand Protection</b>	Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.					
<b>Personal Protective Equipment</b>	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk.					



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<b>Footwear</b>	Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards. Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
<b>Body Protection</b>	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.
<b>Hygiene Measures</b>	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**9. Physical and chemical properties**

<b>Form</b>	Solid
<b>Appearance</b>	White balls, lumps or powder.
<b>Odour</b>	Odourless.
<b>Melting Point</b>	2045 °C
<b>Boiling Point</b>	2980 °C
<b>Solubility in Water</b>	Insoluble.
<b>Specific Gravity</b>	3.96
<b>pH</b>	~ 10.0 (20% slurry)
<b>Flammability</b>	Non combustible material. Non flammable.
<b>Molecular Weight</b>	101.96
<b>Solubility in other solvents (kg/m3)</b>	Soluble in some concentrated acids (pH <4) and alkalies (pH >9).
<b>Other Information</b>	Moh's hardness: 8.8 - very hard Difficultly soluble in mineral acids and strong alkali.

**10. Stability and reactivity**

<b>Chemical Stability</b>	Stable.
<b>Conditions to Avoid</b>	Exposure to moisture and incompatibles.
<b>Incompatible Materials</b>	Chlorine trifluoride and ethylene oxide. Halogen-halogen compounds, halogen oxides, fluorine, hydrogen halides, nitrates, vinyl compounds. Strong acids and strong bases.
<b>Possibility of hazardous reactions</b>	Aluminium oxide reacts violently with chlorine trifluoride, producing flame. Contact with ethylene oxide may cause violent polymerisation.
<b>Hazardous Polymerization</b>	Will not occur.

**11. Toxicological Information**

<b>Toxicology Information</b>	Aluminium oxide does not cause permanent changes in lung structure and function as indicated by animal studies.
<b>Ingestion</b>	May be harmful if swallowed. Ingestion of large quantities may cause gastrointestinal tract irritation. Symptoms include nausea and vomiting.
<b>Inhalation</b>	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.
<b>Skin</b>	May cause mild irritation to the skin by abrasion with acute effects of dryness, redness and pain. May be harmful if absorbed through skin.
<b>Eye</b>	Dust deposited in the eyes may cause irritation due to abrasion.
<b>Carcinogenicity</b>	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.
<b>Chronic Effects</b>	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.
<b>Mutagenicity</b>	No evidence of mutagenic properties.



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**12. Ecological information****Ecotoxicity** No ecological data available for this product.**13. Disposal considerations****Disposal Considerations** Dispose of according to relevant local, state and federal government regulations.**14. Transport information****Transport Information** Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.**15. Regulatory information****Regulatory Information** Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.  
**Poisons Schedule** Not Scheduled**16. Other Information**

**Literature References** 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.  
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.  
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011.  
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Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.  
Safe Work Australia, 'Hazardous Substances Information System, 2005'.  
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.  
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.  
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**Empirical Formula & Structural Formula**Al<sub>2</sub>O<sub>3</sub>  
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