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Infosafe No™ 1CH0O Issue Date : November 2018 RE-ISSUED by CHEMSUPP

Product Name: ALUMINIUM OXIDE Calcined

Not classified as hazardous

1. Identification

GHS Product

ALUMINIUM OXIDE Calcined

Identifier

Company Name CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

Address 38 - 50 Bedford Street GILLMAN

SA 5013 Australia

Telephone/Fax Number Tel: (08) 8440-2000 Fax: (08) 8440-2001

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.

Other Names <u>Name</u> <u>Product Code</u>

Aluminum trioxide, Alumina, Anti-bumping granules, Corundum

ALUMINIUM OXIDE Calcined LR
AL071
Aluminium Oxide Calcined AR
ANTI-BUMPING GRANULES TG
ACCORDANCE
AL071
ANTI-BUMPING GRANULES TG

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

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

GHS classification of the

Not classified as hazardous according to the Approved Criteria for Classifying Hazardous Substances

[NOHSC:1008(2004] 3rd Edition, Safe Work Australia.

substance/mixture

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

Precautionary statement – Prevention P260 Do not breathe dust.

3. Composition/information on ingredients

Composition, information on ingredients

Product AL071 Aluminium oxide may contain <1% of respirable silica in the form of quartz.

Chemical

Solid

Characterization

Ingredients <u>Name</u> <u>CAS</u> <u>Proportion</u> <u>Hazard Symbol</u> <u>Risk Phrase</u>

Aluminium oxide 1344-28-1 99-100 %

Other Information Aluminium oxide exists in several other forms: Boehmite and Diaspore (Al2O3.H2O) and Gibbsite and

Bayerite (Al2O3.3H2O).

4. First-aid measures

Inhalation Remove victim to fresh air. If breathing has stopped, apply artificial respiration. Seek medical advice if

effects persist.

Ingestion Rinse mouth thoroughly with water immediately. Give water to drink. DO NOT induce vomiting. Seek

immediate medical assistance.

Skin Wash with plenty of soap and water. Seek medical advice if effects persist.

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.

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First Aid Facilities Maintain eyewash fountain and safety shower in work area.

Advice to Doctor Treat symptomatically.

Other Information 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

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, Suitable

extinguishing media carbon dioxide, or appropriate foam. Material does not burn. Not a fire hazard.

Specific hazards arising from the

chemical

Precautions in Use suitable protective equipment for surrounding fire.

connection with Fire

6. Accidental release measures

Personal Avoid dust formation and avoid breathing dust.

Precautions

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

Clean-up Methods -**Small Spillages**

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

Precautions for Safe Avoid generation or accumulation of dusts. Use with adequate ventilation.

Handling

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

storage, including

any

incompatabilities

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

Temperatures

8. Exposure controls/personal protection

Occupational STEL TWA Name

exposure limit

values

Other Exposure

Aluminium oxide

mg/m3

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

Information

contamination should be kept to as low a level as is workable.

ppm

mg/m3

ppm

Footnote

A time weighted average (TWA) concentration for Quartz of 0.1 mg/m3 has been established by Safe

Work Australia.

In industrial situations maintain the concentrations values below the TWA. This may be achieved by **Appropriate** engineering controls 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.

Respiratory Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours **Protection**

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.

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. **Eye Protection**

Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

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

Personal Protective

Equipment

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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Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New

Zealand or other approved standards.

Footwear Safety boots in industrial situations is advisory, foot protection should comply with AS 2210,

Occupational protective footwear - Guide to selection, care and use.

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.

Hygiene Measures 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

Form Solid

Appearance White balls, lumps or powder.

Odour Odourless.

Melting Point 2045 °C

Boiling Point 2980 °C

Solubility in Water Insoluble.

Specific Gravity 3.96

pH ~ 10.0 (20% slurry)

Flammability Non combustible material. Non flammable.

Molecular Weight 101.96

Solubility in other

solvents (kg/m3)

Soluble in some concentrated acids (pH <4) and alkalies (pH >9).

Other Information Moh's hardness: 8.8 - very hard

Difficultly soluble in mineral acids and strong alkali.

10. Stability and reactivity

Chemical Stability Stable.

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.

Possibility of

Aluminium oxide reacts violently with chlorine trifluoride, producing flame. Contact with ethylene oxide

hazardous reactions may cause violent polymerisation.

Hazardous Will not occur.

Polymerization

11. Toxicological Information

Toxicology Aluminium oxide does not cause permanent changes in lung structure and function as indicated by

Information 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 respiatory 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 May cause mild irritation to the skin by abrasion with acute effects of dryness, redness and pain. May be

harmful if absorbed through skin.

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

Carcinogenicity Product AL071 may contain a small proportion of crystalline silica as quartz (<1%). Crystalline silica has

been classified by the International Agency for Reseach on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1). Furthermore crystalline silica can cause silicosis or other lung disease on

prolonged exposure.

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.

Mutagenicity No evidence of mutagenic properties.

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12. Ecological information

Ecotoxicity No ecological data available for this product.

13. Disposal considerations

Disposal Dispose of according to relevant local, state and federal government regulations.

Considerations

14. Transport information

Transport Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous

Goods by Road and Rail.

15. Regulatory information

RegulatoryListed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation **Information**2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Poisons Schedule Not Scheduled

16. Other Information

Literature References

Information

'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 fot the Preparation of Safety Data Sheets for Hazardous

Chemicals', 2011.

Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide',

Standards Australia/Standards New Zealand, 2010.

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]'.

Contact Person/Point Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT:

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Empirical Formula & Al2O3

Structural Formula

...End Of MSDS...

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