

SAFETY DATA SHEET

Product Name **ALUMINIUM ATOMISED GRIT**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier name AUSTRALIAN METAL POWDERS SUPPLIES
Address 32 Carrington Road, Guildford, NSW, 2161, AUSTRALIA
Telephone (02) 9681 6155
Fax (02) 9681 6092
Emergency 13 11 26 (Poisons Information Centre)
Email sales@metalpowders.com.au
Web site <http://www.metalpowders.com.au/>
Synonym(s) ALUMINUM ATOMISED GRIT • ATOMISED GRIT
Use(s) LABORATORY APPLICATIONS • LABORATORY REAGENT • METAL ALLOYS • METAL WORK • METALLURGY APPLICATIONS • SURFACE COATING
SDS date 19 March 2014

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES

None allocated

SAFETY PHRASES

None allocated

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN number	None Allocated	DG class	None Allocated
Packing group	None Allocated	Subsidiary risk(s)	None Allocated
Hazchem code	None Allocated		

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Identification	Classification	Content
ALUMINIUM POWDER (PYROPHORIC)	CAS: 7429-90-5 EC: 231-072-3	F+;R15 F;R17	>60%

4. FIRST AID MEASURES

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form.

Advice to doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammability	Non flammable. However, fine aluminium powder may be explosive if dispersed into a dust cloud in air in the presence of an ignition source.
Fire and explosion	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Fires may re-ignite during extinguishing process. Finely divided dust may form explosive mixtures in air when exposed to heat or ignition source (DO NOT disturb burning dust). Do not disturb burning dust and create dust clouds as oxygen will mix with the hot metal and may cause an explosion.
Extinguishing	Dry agent, soda ash, sand or lime. Do not use water or foam. Withdraw from area and let fire burn out. Prevent contamination of drains or waterways.
Hazchem code	None Allocated

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS. CAUTION: May evolve flammable gases in contact with water. Eliminate ignition sources.
Environmental precautions	Prevent product from entering drains and waterways.
Methods of cleaning up	Eliminate all ignition sources. Collect and place in dry, clean, pressure vented, metal containers for re-use or disposal. Use spark proof equipment and shovels.
References	See Sections 8 and 13 for exposure controls and disposal.

7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure standards**

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Aluminium (metal dust)	SWA (AUS)	--	10	--	--
Aluminium (welding fumes) (as Al)	SWA (AUS)	--	5	--	--
Aluminium, alkyls (NOC+) (as Al)	SWA (AUS)	--	2	--	--
Aluminium, pyro powders (as Al)	SWA (AUS)	--	5	--	--
Aluminium, soluble salts (as Al)	SWA (AUS)	--	2	--	--

Biological limits	No Biological Limit Value allocated.
Engineering controls	Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

PPE

Eye / Face	Wear dust-proof goggles.
Hands	Wear PVC or rubber gloves.
Body	When using large quantities or where heavy contamination is likely, wear coveralls.
Respiratory	Where an inhalation risk exists, wear a Class P1 (Particulate) respirator. At high dust levels, wear a Powered Air Purifying Respirator (PAPR) with Class P3 (Particulate) filter or a Full-face Class P3 (Particulate) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	LIGHT GREY POWDER
Odour	SLIGHT ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	2450°C to 2467°C
Melting point	660°C
Evaporation rate	NOT AVAILABLE
pH	NOT AVAILABLE
Vapour density	NOT AVAILABLE
Specific gravity	2.7
Solubility (water)	INSOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT AVAILABLE
Lower explosion limit	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
% Volatiles	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended conditions of storage.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to avoid	Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid) and alkalis (eg. sodium hydroxide).
Hazardous Decomposition Products	May evolve toxic gases if heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. Chronic exposure may result in breathing difficulties and lung fibrosis.
Eye	Low to moderate irritant. Contact may result in irritation, lacrimation, pain and redness.
Inhalation	Irritant. Over exposure may result in mucous membrane irritation of the respiratory tract, with coughing. Under controlled conditions of use no adverse health effects are anticipated. Some studies report that chronic exposure to fine aluminium dust may result in asthma-like symptoms, lung fibrosis (restricting lung function) and a link with Alzheimers disease.
Skin	Low irritant. Prolonged or repeated contact may result in mechanical irritation.
Ingestion	Low toxicity. Ingestion of large quantities may result in nausea, vomiting and gastrointestinal irritation.
Toxicity data	No LD50 data available for this product.

12. ECOLOGICAL INFORMATION

Toxicity	Not expected to be dangerous to the aquatic environment.
Persistence and degradability	Limited information was available at the time of this review.
Bioaccumulative potential	No information provided.
Mobility in soil	Limited information was available at the time of this review.
Other adverse effects	Aluminium in soil may be present as the metal, the oxide or hydroxide, the 3+ ion, or the 3+ ion as an organic complex. The mobility in soil will be greater at high or low soil pH.

13. DISPOSAL CONSIDERATIONS

Waste disposal	Recycle where possible. Collect without generating dust. Eliminate all ignition sources. Place in clean, sealed containers and dispose of to an approved landfill site. Contact the manufacturer for additional information. CAUTION: May evolve flammable gases upon contact with water.
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
UN number	None Allocated	None Allocated	None Allocated
Proper shipping name	None Allocated	None Allocated	None Allocated
DG class/ Division	None Allocated	None Allocated	None Allocated
Subsidiary risk(s)	None Allocated	None Allocated	None Allocated
Packing group	None Allocated	None Allocated	None Allocated
Hazchem code	None Allocated		

15. REGULATORY INFORMATION

Poison schedule	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Inventory Listing(s)	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt.

16. OTHER INFORMATION

Additional information DANGEROUS GOODS CLASSIFICATION: An independent laboratory has tested all grades of aluminium atomised powder in accordance with the detailed test procedures laid down in the ADG Code. Aluminium atomised powder does NOT meet the criteria for the "dangerous when wet" classification, and accordingly these powders have not been classified as Dangerous Goods. Finely divided metal powder has a protective oxide layer which reduces the materials reactive nature and moisture sensitivity.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Revision history

Revision	Description
1.1	Standard SDS Review
1.0	Initial SDS creation

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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End of SDS