



ALUMINIUM POWDER

Australian Specialty Inks Pty Ltd

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566

Telephone: (02) 9603-3399 Fax (02) 9603-7761

Website: www.austspecialtyinks.com.au

Product Number: FSU132

SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifiers

Product Name: ALUMINIUM POWDER

Product Number: FSU132

Recommended Use of the chemical and restrictions on use: Use as a pigment colouring agent

Company Details

AUSTRALIAN SPECIALTY INKS PTY LTD

A.B.N. 71 002 591 620

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2. HAZARDS IDENTIFICATION

Classified as hazardous according to the Globally Harmonised System of Classification and labeling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

GHS classification(s): Flammable Solids: Category 1

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

Flammable Solid: Category 4.1

Signal Words: DANGER



GHS Classification	Pictogram	Hazard Statement
Flammable Solid, Category 1 Substance or Mixture which in contact with water emits flammable gas, Category 2		H228 Flammable solid H261 In contact with water releases flammable gases.

Precautionary statements:

<i>GENERAL</i>	P101 If medical advice is needed, have product container or label at hand P102 Keep out of reach of children P103 Read label before use
<i>PREVENTATIVE</i>	P201 Obtain special instructions before use P202 Do not handle until all safety precautions have been read and understood P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking P233 Keep container tightly closed P240 Ground/Bond container and receiving equipment P241 Use explosion-proof electrical/ventilating/lighting/equipment P242 Use only non-sparking tools P243 Take precautionary measures against static discharge P264 Wash thoroughly after handling P280 Wear protective gloves/eye protection/face protection
<i>RESPONSE</i>	P303+P361+P353 If ON SKIN (or hair) Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower P305+P351+P338 If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to get to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention P370+P378 In case of fire: Use for extinction: Special powder for metal fires or dry sand Collect spillage
<i>STORAGE</i>	P403+P235 Store in a well ventilated place. Keep cool P405 Store locked up
<i>DISPOSAL</i>	P501 Dispose of contents/container in accordance with local regulations



3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Names and Proportions

Chemical entity	CAS Number	Proportion
Aluminium powder (stabilized)	7429-90-5	100 %

4. FIRST-AID MEASURES

Description of necessary first aid measures

Inhalation:	Remove victim from exposure if safe to do so. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing.
Skin Contact:	The product is not skin irritating. If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available.
Eye Contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes. Seek immediate medical assistance.
Ingestion:	If swallowed seek medical treatment. For advice contact a Poison Information Centre on 13 1126. Do not induce vomiting. Ingestion considered unlikely due to product form.

Symptoms caused by exposure

Inhalation:	Overexposure to alumina powder may result in mucous membrane irritation of the nose and throat.
Skin Contact:	No further relevant information available.
Eye Contact:	No further relevant information available.
Ingestion:	No further relevant information available.

Treat symptomatically.



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5. FIRE-FIGHTING MEASURES

Suitable extinguishing equipment

Special powder for metal fires or dry sand. Soda ash or lime. Do not use water.

For safety reasons unsuitable extinguishing agents:

Foam

Carbon dioxide

Water

ABC powder

Specific hazards arising from the chemical

Flammable dust. Fine aluminium powder may be explosive if dispersed into a dust cloud in air in the presence of an ignition source. Contact with water liberates extremely flammable gas (hydrogen)

Advice for firefighters

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 when combating fire.

Special protective equipment and precautions for fire fighters

No special measures required

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Avoid causing dust. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all sources of ignition in the surrounding area.

Environmental precautions

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers.

Methods and materials for containment and cleaning up

Collect mechanically using spark proof equipment and shovels. Do not use a vacuum cleaner. Collect and place in dry, clean, pressure vented, metal containers for re-use or disposal. Do not flush with water or aqueous cleaning agents.



7. HANDLING AND STORAGE

Precautions for safe handling

Before use carefully read safety information. 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. Prevent formation of dust. Any deposit of dust which cannot be avoided must be removed regularly. Protect from humidity and keep away from water.

Information about protection against explosions and fires

Keep ignition sources away – Do not smoke.
Protect against electrostatic charges.
Dust can combine with air to form an explosive mixture.
Reaction with water liberates extremely flammable gas (hydrogen)
Use intrinsically safe equipment, non sparking tools.

Conditions for safe storage

Store in a well cool, ventilated area, away from sunlight, ignition sources and other sources of heat.
Store only in original container ensuring adequately labelled. Do not store with oxidizing, acidic or alkalis.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

From National Occupational Health & Safety Commission (NOHSC) Worksafe Australia –
Aluminum powder (stabilized):
DNELs 3 Al/m³, respirable, TWA (8hr)
PNECs-values range from 46 to 17800 µg/l depending from water chemistry.

Exposure control measures

Personal protective equipment. Use suitable breathing protection if workplace concentration requires.
Filter P1.
Long cuffed gloves.
Eye and face protection.
Anti-static and fire resistant protective clothing and anti-static safety shoes.
Wash hands during breaks and at the end of the work.

Biological monitoring

No biological limit allocated.

Engineering controls

Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling dust mists. Keep containers closed when not in use.



Individual protection measures

Eye and face protection:	Wear safety goggles.
Skin protection:	Use leather gloves, nitrile for longer term protection or PVC and neoprene for incidental splashes.
Respiratory Protection:	If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point > 65 ^o C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.
Thermal hazards:	Not applicable.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Silver coloured powder
Odour:	Odourless
Odour threshold (ppm):	Data not available
pH:	Data not available
Melting point (°C):	660
Initial boiling point and boiling range (°C):	>999
Flash point (°C):	Not applicable
Ignition Temperature (°C): Minimum ignition Temperature (°C) test-dust layer:	>400 >230
Flammability:	Flammable solid



Danger of explosion:	This product is not hazardous in regard of explosions, however, may form explosive dust/air mixtures.
Critical values for explosion Lower (g/m³):	30
Vapour density (air = 1):	4
Density (g/m³ @ 20^oC):	2.7
Solubility:	Insoluble in water

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions of use. The substance or mixture does emit flammable gases in contact with water.

Chemical stability

Stable under normal conditions of use.

Possibility of hazardous reactions

Avoid dust clouds, they may form explosible dust air-mixture.
Risk of dust explosion if enriched with fine dust in presence of air.
Contact with water may release flammable gases.
Reacts with halogenated compounds
Reacts with acids and alkalis releasing hydrogen

Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Dust formation.

Incompatible materials

Strong oxidizing agents and strong acids.

Hazardous decomposition products

None



11. TOXICOLOGICAL INFORMATION

Acute toxicity:	LD50 Oral (rat): >2000mg/kg LC50 Inhalation (rat): >888 mg/m ³ NOAEC (rat): 10 mg/m ³
Skin corrosion/irritation:	Contact may result in irritation, redness and rash
Serious eye damage/irritation:	Contact may result in irritation, redness and lacrimation.
Respiratory:	No sensitizing effect known.
Ingestion:	No adverse effects expected.
Germ Cell mutagenicity:	Not expected to be mutagenic
Carcinogenicity:	No evidence of carcinogenic properties.
Reproductive toxicity:	Not expected to impair fertility
Subacute to chronic toxicity:	No effects known
Additional toxicological information:	Above given information is based on long term experience.



12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute toxicity

Fish:	No further relevant information available
Aquatic invertebrate:	No further relevant information available
Algae:	No further relevant information available
Microorganisms:	No further relevant information available

Chronic toxicity

Fish:	No further relevant information available
Aquatic invertebrate:	No further relevant information available
Algae:	No further relevant information available
Microorganisms:	No further relevant information available

Persistence and degradability

No further relevant information available

Bioaccumulative potential

No further relevant information available

Mobility in soil

No further relevant information available

Other adverse effects

No further relevant information available.



13. DISPOSAL CONSIDERATIONS

Recycle where possible. Ensure waste disposal conforms to local waste disposal regulations.

14. TRANSPORT INFORMATION

UN number:	1309
Proper shipping name:	Aluminium powder, coated
Australian Dangerous Goods class:	4.1
Australian Dangerous Goods packing group:	II
Hazchem code:	1Z

15. REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	Not scheduled
Australian Inventory of Chemical Substances (AICS):	Listed
Dangerous Goods Initial Emergency Response Guide (SAA/SNZ):	16

16. ANY OTHER RELEVANT INFORMATION

Date of preparation:	31/03/2017
Revision number:	2
Changes in this revision:	Update to GHS SDS standard



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