Infosafe No™ 1CHJN	Issue Date :June 2021	RE-ISSUED by CHEMSUPP

Product Name **MAGNESIUM Ribbon**

Classified as hazardous

1. Identification

GHS Product Identifier	MAGNESIUM Ribbon
Company Name	CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address	www.chemsupply.com.au
Recommended use of the chemical and restrictions on use	Reducing agent, thermite reactions, photographic flashbulbs and laboratory reagent.

Other Names

Name	Product Code
MAGNESIUM Ribbon TG	MT032

Other Information

ChemSupply Australia 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 ChemSupply Australia 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 ChemSupply Australia 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 substance/mixture	Flammable Solids: Category 1 Self-heating substances and mixtures: Category 1 Substances and Mixtures which, in contact with water, emit flammable gases: Category 2
Signal Word (s)	DANGER
Hazard Statement (s)	H228 Flammable solid. H251 Self heating; may catch fire. H261 In contact with water releases flammable gases.
Pictogram (s)	Flame

Precautionary statement – Prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire. P231+P232 Handle under inert gas. Protect from moisture. P235 + P410 Keep cool. Protect from sunlight. P240 Ground/bond container and receiving equipment. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement – Response	P335+P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. P370+P378 In case of fire: Use dry chemical, soda ash, lime or sand for

	extinction.
Precautionary statement – Storage	P402+P404 Store in a dry place. Store in a closed container. P420 Store away from other materials. P422 Store contents under inert gas.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.
Other Information	Magnesium powder is entered in Class 4.3 as a substance dangerous when wet. Pyrophoric alloys are entered in Class 4.2.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Magnesium	7439-95-4	100 %

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Quickly but gently, wipe material off skin. Remove contaminated clothing and wash affected skin with soap and water. Contaminated clothing must be laundered before re-use Seek medical attention in severe cases.
Eye contact	Remove contact lenses. Carefully remove particles with cotton applicator. Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and drench facilities in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Unsuitable Extinguishing Media	Water, foam and carbon dioxide.
Hazards from Combustion Products	Emits toxic fumes under fire conditions.
Specific Methods	DO NOT USE WATER OR FOAM. Small fire: Use dry chemical, soda ash, lime or sand. If safe to do so, move undamaged containers from fire area. Large fire: Use DRY sand, dry chemical, soda ash or lime or withdraw and let fire burn. Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.
Specific hazards arising from the chemical	Produce flammable substances on contact with water. May ignite on contact with water or moist air. May react vigorously or explosively on contact with water. May be ignited by heat, sparks or flame. May re-ignite after fire is extinguished. Some are kept in or under flammable liquids. Fire will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Runoff may create multiple fire or explosion hazard.
Hazchem Code	1Z
Precautions in connection with Fire	Wear SCBA and chemical splash suit. Structural firefighter's uniform may provide limited protection.

6. Accidental release measures

Spills & Disposal	ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25m. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Water spray may be used to knock down vapours or divert vapour clouds. DO NOT GET WATER

	inside containers or in contact with substance. Small spill Cover with DRY earth, sand or other non-combustible material followed by plastic sheet to minimize spreading or contact with rain. Large Spill SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Personal Precautions	Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms. Evacuate the area of all non-essential personnel.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

7. Handling and storage

Conditions for safe storage, including any incompatibilities	Store away from sources of heat or ignition. Store away from oxidizing agents. Store away from acids. Keep containers closed at all times. Store at room temperature (15 - 25 °C). Keep dry and protect from direct sunlight.
Corrosiveness	Non-corrosive in presence of glass. Magnesium is anodic to all other structural metals. Magnesium develops a corrosion-inhibiting film upon exposure to clean atmospheres and freshwater. However, the film breaks down in the presence of chlorides, sulphates and other media. It is rapidly attacked by mineral acids, except for chromic and hydrofluoric acids. It is however, resistant to dilute alkalies, aliphatic and aromatic hydrocarbons, particular alcohols, and dry bromine, chlorine and fluorine gases. Anodising magnesium improves its corrosion resistance.
Storage Regulations	Refer Australian Standard AS/NZS 5026-2012 'The storage and handling of Class 4 dangerous goods'.

8. Exposure controls/personal protection

Other Exposure Information	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.
Appropriate engineering controls	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.
Respiratory Protection	Usually is not required in this form. Where protection is required from nuisance levels of dust or mists select respiratory protection that complies with AS 1716 - Respiratory Protective Devices and select in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels.
Eye 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.
Hand Protection	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
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. 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	Flame retardant antistatic protective clothing. 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	Silvery white metal strips.
Odour	Odourless.
Melting Point	651 °C
Boiling Point	1100 °C
Solubility in Water	Insoluble in cold water. Very slightly soluble with decomposition in hot water.
Solubility in Organic Solvents	Soluble in ammonium salts.
Specific Gravity	1.738
Vapour Pressure	1 mm Hg @ 621 °C
Volatile Component	0%
Flash Point	636 °C.
Flammability	Flammable solid. Contact with moisture or water liberates flammable gases.
Auto-Ignition Temperature	473 - 510 °C.
Flammable Limits - Lower	0.04%
Explosion Properties	Water used on molten magnesium will produce hydrogen gas and may cause an explosion. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Minimum explosible concentration 0.030 grams/litre.
Molecular Weight	24.31
Solubility in other solvents (kg/m3)	Insoluble in chromium trioxides, and mineral acids, alkalies. Soluble in concentrated hydrogen fluoride.

10. Stability and reactivity

Chemical Stability	Stable under ordinary conditions of use and storage. Slowly oxidizes in moist air.
Conditions to Avoid	Heat, flames, ignition sources, water or moisture, moist air, air and incompatibles.
Incompatible Materials	Water and acids will release hydrogen; reacts violently with halogens, chloromethane, carbonates, cyanides, chlorinated hydrocarbons, sulfates, and other metals. Incompatible with oxidizing agents, acid chlorides, bases and alcohols. Sensitive to air.
Hazardous Decomposition Products	Magnesium oxide, some metallic oxides. When exposed to acids and water, hydrogen will be produced.
Possibility of hazardous reactions	Violent chemical reaction with oxidizing agents. Reacts with water to create hydrogen gas and heat. Must be kept dry. Reacts with acids to form hydrogen gas which is highly flammable and explosive. Reacts violently with halogens, chlorinated solvents, chloromethane. Magnesium forms hazardous or explosive mixtures with aluminium and potassium perchlorate; ammonium nitrate; barium nitrate, barium dioxide and zinc; beryllium oxide; boron phosphodiiodide; bromobenzyl trifluoride; cadmium cyanide; cadmium oxide; calcium carbide; carbonates; carbon tetrachloride; chlorine; chlorine trifluoride; chloroform;

	cobalt cyanide; copper cyanide; copper sulfate(anhydrous), ammonium nitrate, potassium chlorate and water; cupric oxide; cupric sulfate; fluorine; gold cyanide; hydrogen and calcium carbonate; hydrogen iodide; hydrogen peroxide; iodine; lead cyanide; mercuric oxide; mercury cyanide; methyl chloride; molybdenum trioxide; nickel cyanide; nitric acid; nitrogen dioxide; oxygen (liquid); performic acid; phosphates; potassium chlorate; potassium perchlorate; silver nitrate; silver oxide; sodium perchlorate; sodium peroxide; sodium peroxide and carbon dioxide; stannic oxide; sulfates; trichloroethylene; zinc cyanide; zinc oxide.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	Magnesium metal does not have well-characterized toxicity. May cause abdominal pain and diarrhoea.
Inhalation	Inhalation of dusts or fumes may irritate the respiratory tract and may cause metal fume fever. Symptoms may include coughing, chest pain, fever, and leukocytosis.
Skin	Particles embedded in the skin may cause eruptions. Molten magnesium may cause serious skin burns.
Eye	High concentrations of dust may cause mechanical irritation. Watching a magnesium fire can cause eye injury.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not listed in the IARC Monographs. Not classified based on available information.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Mutagenicity	No evidence of mutagenic properties. Not classified based on available information.

12. Ecological information

Ecological Information	No ecology data available for this product.
Persistence and degradability	Methods for the determination of biodegradability are not applicable to inorganic substances.
Acute Toxicity - Fish	The following applies to magnesium compounds in general: lethal for fish 100 mg/l.

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Dangerous Goods of Class 4.1 Flammable Solids, are incompatible in a placard load with any of the following: - Class 1, Class 2.1, Class 4.2, Class 5 and Class 7
U.N. Number	1869
UN proper shipping name	MAGNESIUM

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Transport hazard class(es)	4.1
Hazchem Code	1Z
Packing Group	III
EPG Number	4A1
IERG Number	26
Environmental Hazards	After reaction, harmful effect on aquatic organisms.

15. Regulatory information

Regulatory Information	All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. 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. 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'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
Empirical Formula & Structural Formula	Mg

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