

## Magnesium metal powder

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Magnesium metal powder
<b>Other Means of Identification</b>	Elemental magnesium
<b>Product Code(s)</b>	MA0510, MA0511, MA0515
<b>Product Family</b>	Inorganic Solid
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	0319

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

#### Classification

Flammable solid - Category 1; Pyrophoric solid - Category 1; In contact with water, emits flammable gases - Category 1

#### Label Elements



Signal Word:  
Danger

#### Hazard Statement(s):

Flammable solid.

In contact with water releases flammable gases which may ignite spontaneously.

#### Precautionary Statement(s):

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not allow contact with water.

Do not allow contact with air.

Handle and store contents under inert gas. Protect from moisture.

IF ON SKIN: Wash with plenty of water/

Storage:

Store in a dry place. Store in a closed container.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

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Product Identifier: Magnesium metal powder

Date of Preparation: January 19, 2016

Page 01 of 06

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers
MAGNESIUM, ELEMENTAL	7439-95-4	> 99	Elemental magnesium

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

##### Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice or attention.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

##### Ingestion

Do not induce vomiting. Rinse mouth with water. If vomiting occurs, have person lie on side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

##### First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. If exposed or concerned, get medical advice or attention.

#### Most Important Symptoms and Effects, Acute and Delayed

None known.

#### Immediate Medical Attention and Special Treatment

##### Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Use approved Class D extinguishers. Smother with dry sand, dry clay, or dry ground limestone and dry graphite. Helium and argon can also be used to smother a fire.

##### Unsuitable Extinguishing Media

DO NOT use carbon dioxide, sodium bicarbonate, halogenated compounds, foam or water. Do not use water or foam.

#### Specific Hazards Arising from the Product

Closed containers may rupture violently when heated releasing contents. Releases a flammable gas on contact with water or water vapour.

In a fire, the following hazardous materials may be generated: flammable hydrogen. Magnesium Oxide.

#### Special Protective Equipment and Precautions for Fire-fighters

Burning of magnesium cannot be extinguished with water, carbon dioxide, halons or nitrogen..., and more important, if these agents are used in fire-fighting, the hazardous situation will become even more severe. The only agents that can be applied successfully are the noble gases or in some cases boron trifluoride.

To fight fire, operators & fire fighters can approach a magnesium fire to within a few feet if no moisture is present.

Product Identifier: Magnesium metal powder

Date of Preparation: January 19, 2016

Page 02 of 06

Water & ordinary extinguishers, such as carbon dioxide & carbon tetrachloride should not be used on magnesium fires. G-1 powder or powdered talc should be used on open fires.  
Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources if safe to do so. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Only use where there is adequate ventilation. Avoid generating dusts. Wear personal protective equipment to avoid direct contact with this chemical. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent accidental contact with incompatible chemicals. Electrically bond and ground equipment. Ground clips must contact bare metal. Keep dry. Prevent exposure to water and humidity. Handle under inert gas atmosphere in dry equipment. Prevent any accidental contact with water in handling and storage areas.

### Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Protect product from contact with water, including humidity. Prevent rainwater and ground water from reaching storage area. Store in a closed container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
MAGNESIUM, ELEMENTAL	Not established		Not established			

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

No specific guidelines are available. Contact chemical manufacturer/supplier for advice.

#### Respiratory Protection

No specific guidelines are available. Contact chemical manufacturer/supplier for advice.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

**Appearance** White - grey powder.

**Odour** Odourless

Product Identifier: Magnesium metal powder

Date of Preparation: January 19, 2016

Page 03 of 06

<b>Odour Threshold</b>	Not available
<b>pH</b>	Not applicable
<b>Melting Point/Freezing Point</b>	650 - 651 °C (1202 - 1204 °F) (melting); 650 - 651 °C (1202 - 1204 °F) (freezing)
<b>Initial Boiling Point/Range</b>	1100 °C (2012 °F)
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	1.74 at 20 °C
<b>Solubility</b>	Insoluble in water; acids (e.g. acetic acid).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not applicable
<b>Auto-ignition Temperature</b>	482 - 510 °C (900 - 950 °F)
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not applicable (kinematic); Not applicable (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Solid
<b>Other Physical Property 1</b>	Flammable Properties: The potential for ignition depends to a large extent on the size and shape of the material as well as the size and intensity of the source of ignition.

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

In contact with water, releases flammable gas.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Water, moisture or humidity. Exposure to air. Open flames, sparks, static discharge, heat and other ignition sources.

### Incompatible Materials

Strong acids (e.g. hydrochloric acid), strong oxidizing agents (e.g. perchloric acid), halogens (e.g. chlorine), water.

### Hazardous Decomposition Products

Flammable hydrogen gas.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; ingestion; eye contact.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
MAGNESIUM, ELEMENTAL	Not available	Not available	Not available

### Skin Corrosion/Irritation

No information was located.

Product Identifier: Magnesium metal powder

Date of Preparation: January 19, 2016

Page 04 of 06

**Serious Eye Damage/Irritation**

No information was located.

**STOT (Specific Target Organ Toxicity) - Single Exposure****Inhalation**

No information was located.

**Ingestion**

No information was located.

**Aspiration Hazard**

No information was located.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

No information was located.

**Respiratory and/or Skin Sensitization**

No information was located.

**Carcinogenicity**

Chemical Name	IARC	ACGIH®	NTP	OSHA
MAGNESIUM, ELEMENTAL	Not Listed	Not Listed	Not Listed	Not Listed

**Reproductive Toxicity****Development of Offspring**

No information was located.

**Sexual Function and Fertility**

No information was located.

**Effects on or via Lactation**

No information was located.

**Germ Cell Mutagenicity**

No information was located.

**Interactive Effects**

No information was located.

**SECTION 12. ECOLOGICAL INFORMATION**

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal Methods**

Dispose of contents and container in accordance with local, regional, national and international regulations.

**SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1418	MAGNESIUM, POWDER	4.3	II
US DOT	UN1418	MAGNESIUM, POWDER	4.3	II
IATA (Air)	UN1418	MAGNESIUM, POWDER	4.3	II
IMO (Marine)	UN1418	MAGNESIUM, POWDER	4.3	II

**Special Precautions** Not applicable**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

Product Identifier: Magnesium metal powder

Date of Preparation: January 19, 2016

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

<b>NFPA Rating</b>	<b>Health - 0</b>	<b>Flammability - 1</b>	<b>Instability - 1</b>
<b>SDS Prepared By</b>	Alphachem Limited		
<b>Phone No.</b>	(905)-821-2995		
<b>Date of Preparation</b>	January 19, 2016		
<b>Date of Last Revision</b>	August 11, 2016		
<b>References</b>	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). ScienceLab database.		
<b>Disclaimer</b>	This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.		

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Product Identifier: Magnesium metal powder

Date of Preparation: January 19, 2016

Page 06 of 06