

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT IDENTIFICATION AND USE

Product Identifier	MAGNESIUM INGOTS and BILLETS	Product Identification Number (PIN)	Not Classified
Shipping Name	Product Use Alloying Additions, Reducing Agents, Chemical Reagents		
Imported by:			

## SECTION 2 - INGREDIENTS AND HAZARDS

INGREDIENTS	% Wt/Wt	CAS NUMBER	LD <sub>50</sub> OF INGREDIENT (Specify Species/ Route)	LC <sub>50</sub> OF INGREDIENT (Specify Species)
MAGNESIUM	99.8	7439-95-4	Lowest published lethal dosage oral dog 230mg/kg	NOT AVAILABLE

The test method for oral toxicity is not known. Ingots are not normally considered to be hazardous

## SECTION 3 - PHYSICAL DATA

PHYSICAL STATE	SOLID	ODOUR & APPEARANCE	ODOURLESS - METALLIC LUSTRE GREY Rectangular massive ingots, slabs, cylindrical shapes or segmented ingots	ODOUR THRESHOLD (ppm)	NOT APPLICABLE
VAPOUR PRESSURE (mm Hg)	2mm at 699°C	VAPOUR DENSITY (Air = 1)	> 0.8	EVAPORATION RATE	NOT APPLICABLE
		BOILING POINT (°C)	1090° C	FREEZING POINT (°C)	649° C
pH	NOT APPLICABLE	SPECIFIC GRAVITY	1.74	COEFF. WATER/OIL DIST.	NOT APPLICABLE

## SECTION 4 - FIRE AND EXPLOSION DATA

FLAMMABILITY	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, UNDER WHAT CONDITIONS	Oxidation may be self sustaining above 550°C
MEANS OF EXTINCTION	Do not use water, foam or halogenic extinguishers. Remove sources of oxygen. Use dry powder or graphite extinguishers. Ventilate to dissipate hydrogen if water is present. Use MET-L-X powder	
FLASHPOINT (°C) AND METHOD	UPPER FLAMMABLE LIMIT (% BY VOLUME)	LOWER FLAMMABLE LIMIT (% BY VOLUME)
NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
AUTOIGNITION TEMPERATURE (°C)	HAZARDOUS COMBUSTION PRODUCTS: Magnesium Oxide fumes MgO [1309-48-4] Time weighted average 10mg/m <sup>3</sup> (ACGIH)	
APPROXIMATELY 550° C		
EXPLOSION: SENSITIVITY TO IMPACT	SENSITIVITY TO STATIC DISCHARGE	
NOT SENSITIVE IN INGOT FORM	NOT SENSITIVE IN INGOT FORM	

## SECTION 5 - REACTIVITY DATA

CHEMICAL STABILITY	Material is considered to be stable in normal ambient conditions of dry atmosphere
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF NO, UNDER WHAT CONDITIONS?	
INCOMPATIBILITY WITH OTHER SUBSTANCES	Avoid contact with acids and water and sources of oxygen, moisture or methanol. Incompatible with chlorides, nitrates, peroxides, cyanides and phosphates.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF SO, WHICH ONES?	
REACTIVITY, AND UNDER WHAT CONDITIONS	Material highly reducing above 650°C. Finely divided dust concentrations are highly reactive at ambient temperatures. Explosive reaction on heat eg. with some oxides, cyanides, nitrates, phosphates or chlorates.
HAZARDOUS DECOMPOSITION PRODUCTS	Fires may produce irritating, toxic, corrosive or explosive gases from contact with other source materials.

PRODUCT IDENTIFIER: MAGNESIUM INGOTS

### SECTION 6 - TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: SKIN CONTACT \_\_\_ SKIN ABSORPTION \_\_\_ EYE CONTACT \_\_\_ INHALATION X INGESTION X

EFFECTS OF ACUTE EXPOSURE TO PRODUCT: Poison by ingestion

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: Not considered hazardous

EXPOSURE LIMITS: Mag Oxide fumes  
[1309-49-4] Time weighted average  
exposure value 10mg/m<sup>3</sup>

IRRITANCY OF PRODUCT  
NOT AVAILABLE

SENSITIZATION TO PRODUCT  
NOT AVAILABLE

CARCINOGENICITY  
NOT AVAILABLE

TERATOGENICITY  
NOT AVAILABLE

REPRODUCTIVE TOXICITY  
NOT AVAILABLE

MUTAGENICITY  
NOT AVAILABLE

SYNERGISTIC PRODUCTS  
NOT AVAILABLE

### SECTION 7 - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: Normal workplace equipment appropriate to operation being performed

GLOVES: Protect from snags. Only gloves  
which do not lead to dust build up should be  
used

RESPIRATOR: CSA TC-21C half mask face  
piece for particulate removal or as required by  
appropriate agency where dust build up may  
result from operations

EYE: Minimum requirement is CSA Class 1b  
or 1c spectacles with side shields. Protect  
against flying objects or particles.

FOOTWEAR: Normal work place protection.  
Steel toes with metatarsal guards. Meet CSA  
standard Z 195

CLOTHING: Avoid dust buildup. Normal  
workplace coveralls.

OTHER

ENGINEERING CONTROLS: Avoid uncontrolled accumulation or dispersion of powder or dust from handling or manufacturing operations.  
Eliminate sparks, open flames or other ignition sources.

LEAK AND SPILL PROCEDURE: Dry collection by sweeping or dry handling. Collect in unsealed metal containers, with appropriate label for contents.

WASTE DISPOSAL: Material may be ignited by remote fused ignition. Dispose as for lime. See local codes & regulations.

HANDLING PROCEDURES & EQUIPMENT: Avoid dusting or spills. Pallets and drums are used with lifting equipment.

STORAGE REQUIREMENTS: Store in ventilated dry area, away from sources of water or combustible materials. Refer to local codes and regulations.

SPECIAL SHIPPING INFORMATION: Not classified

### SECTION 8 - FIRST AID MEASURES

#### SPECIFIC MEASURES

Move victim to fresh air. Call emergency medical care. Apply artificial respiration if patient not breathing. Remove contaminated material from skin surfaces and eyes by flushing with running water for at least fifteen (15) minutes. Ensure medical staff are aware of the identity of products involved.

### SECTION 9 - PREPARATION DATE OF MSDS

PREPARED BY (GROUP, DEPARTMENT, etc)

PHONE NUMBER

DATE:  
8-26-11

"The information contained on this Material Safety Data Sheet is, to the best of our knowledge, an accurate summary of the data available as of the date of preparation. Timminco Metals is not liable for the application or use of this information in situations beyond its control or outside the normal and expected use of its product."

### SECTION 10 - ALTERNATIVE EMERGENCY CONTACTS

N Abdulrahman  
R. McQueary

(720) 277-1207  
011-52-867-714-6213

CANADIAN TRANSPORT EMERGENCY CENTRE

**CANUTEC**

(Call collect 24 hours - Emergency Number only)

In Canada: (613) 996 - 6666