MATERIAL SAFETY DATA SHEET – 16 Sections

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier #7870 Magnesium Fire Starter			[WHMIS Classification]
Product Use			
Manufacturer's Name		Supplier's Name Coghlan's Ltd.	
Street Address		Street Address 121 Irene Street	
City	Province	City Winnipeg	Province Manitoba
Postal Code	Emergency Telephone	Postal Code R3T 4C7	Emergency Telephone 1-877-264-4526
Date MSDS Revised February 01, 2010	MSDS Prepared By		Phone Number (204)284-9550

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients (specific)	%	CAS Number	LD_{50} of Ingredient (specify species and route)	LC_{50} of Ingredient (specify species)
Base Metal: Magnesium	Balance	7439-95-4		
Alloy elements: Aluminum	<10	7429-90-5		
Manganese	<1	7439-96-5		
Zinc	<6	7440-66-6		
Zirconium	<1	7440-67-7		

SECTION 3 – HAZARDS IDENTIFICATION

Route of Entry [ ] Skin Contact [ ] Skin Absorption [x] Eye Contact [x] Inhalation [ ] Ingestion

[Emergency Overview] Short-term exposure to fumes/dust may produce irritation of eyes and respiratory system. Symptoms characterized by metallic taste in mouth, dryness and irritation in throat and coughing.

[WHMIS Symbols]

[Potential Health Effects]
Steel products in the natural state do not present an inhalation, ingestion or contact hazard. However, operations such as burning, welding, sawing, brazing and grinding may release fumes and/or dusts which may present health hazards if TLV's are exceeded.

SECTION 4 – FIRST AID MEASURES

Skin Contact

Eye Contact
Flush with water for at least 15 minutes.

Inhalation
If exposed to excessive levels of metal fumes, remove to fresh air and seek medical aid immediately.

Ingestion

[Optional, not required under WHMIS]

SECTION 5 – FIRE FIGHTING MEASURES

Flammable ☐ Yes ☐ No	If yes, under which conditions?	
Means of Extinction Dry sand, metal extinguishing powders such as GI, MET-L-X. DO NOT use water, foam or halogen on dust fires.		
Flashpoint (°C) and Method	Upper Flammable Limit (% by volume)	Lower Flammable Limit (% by volume)
Autoignition Temperature (°C)	Explosion Data – Sensitivity to Impact	Explosion Data – Sensitivity to Static Discharge
Hazardous Combustion Products Use of water on molten magnesium will produce Hydrogen gas and may cause an explosion.		
[NFPA]		

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures

Remove all sources of ignition. Ventilate area of the spill. Sweep spilled substance into clean, dry metal container. DO NOT use water in collection process. If spilled magnesium has come into contact with water, proceed with caution.

Hydrogen gas may be generated which may cause a fire or explosion.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment

Local exhaust ventilation should be utilized when welding, burning, sawing, brazing, grinding or machining. Precautions should be taken against airborne dust.

Storage Requirements

Store product in dry location. Wet, moist or high humidity storage conditions will lead to corrosion of product. Store away from other combustibles.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits ☐ ACGIH TLV ☐ OSHA PEL ☐ Other (specify)

Specific Engineering Controls *(such as ventilation, enclosed process)*

NIOSH/MSHA approved dust and fume respirator should be used to avoid excessive inhalation of particulates when exposure exceeds TLV's.

Personal Protective Equipment ☒ Gloves ☒ Respirator ☒ Eye ☐ Footwear ☐ Clothing ☐ Other

If checked, please specify type

Protective gloves are recommended during handling of fines exposure. Safety glasses or goggles should be utilized as required by exposure. Other protective equipment should be utilized as required by the welding standard.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid	Odour and Appearance Odorless, silver	Odour Threshold (ppm)
Specific Gravity (H_2O = 1) 1.74	Vapour Density (air=1)	Vapour Pressure (mmHg)
Evaporation Rate	Boiling Point (°C) 2012°F	Freezing Point (°C) 1202°F
pH	Coefficient of Water/Oil Distribution	[Solubility in Water] Insoluble

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability [x] Yes [ ] No	If no, under which conditions?
Incompatibility with Other Substances [x] Yes [ ] No	If yes, which ones? Acid, water
Reactivity, and under what conditions? Reacts with acid to form hydrogen gas. In finely divided form, will react with water and acids to release hydrogen and may	
cause fires or explosion. Keep away from sources of ignition.	
Hazardous Decomposition Products Reacts with acid to form hydrogen gas. In finely divided form, will react with water and acids to release hydrogen and may	
cause fires or explosion. Keep away from sources of ignition.	

SECTION 11– TOXICOLOGICAL INFORMATION

Effects of Acute Exposure Product used under normal conditions does not represent an inhalation, ingestion or contact health hazard.	
Effects of Chronic Exposure Product used under normal conditions does not represent an inhalation, ingestion or contact health hazard.	
Irritancy of Product	
Skin Sensitization	Respiratory Sensitization
Carcinogenicity – IARC No properties present	Carcinogenicity – ACGIH No properties present
Reproductive Toxicity	Teratogenicity
Embryotoxicity	Mutagenicity
Name of Synergistic Products/Effects	

SECTION 12 – ECOLOGICAL INFORMATION

[Aquatic Toxicity]

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Consult local, state and federal regulations for proper disposal methods and guidelines.

SECTION 14 – TRANSPORT INFORMATION

Special Shipping Information Non-Regulated by all modes of transportation.	
	PIN
TDG Non-Regulated	[DOT] Non-Regulated
[IMO] Non-Regulated	[ICAO] [IATA] Non-Regulated

SECTION 15 – REGULATORY INFORMATION

[WHMIS Classification]	[OSHA]
[SERA]	[TSCA]
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.	

SECTION 16 – OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is only to
describe the product. The data does not signify any warranty with regard to the products' properties.