



## SAFETY DATA SHEET

*This Safety Data Sheet complies with the Canadian Hazardous Product Regulations, the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910 (OSHA HCS), and the European Union Directives.*

### 1. Product and Supplier Identification

- 1.1 **Product:** Magnesium Fire Starter
- 1.2 **Other Means of Identification:** Coghlan's #7870
- 1.3 **Product Use:** Fire starter
- 1.4 **Restrictions on Use:** None known
- 1.5 **Producer:** Coghlan's Ltd.,  
121 Irene Street,  
Winnipeg, Manitoba  
Canada, R3T 4C7
- Telephone: +1(204) 284-9550  
Facsimile: +1(204) 475-4127  
Email: [info@coghlan.com](mailto:info@coghlan.com)
- Supplier:** As above
- 1.6 **Emergencies:** +1(877) 264-4526

### 2. Hazards Identification

2.1 **Classification of product or mixture**

This product is an untested preparation. *GHS classification for this preparation is based upon its use as a fire starter by making shavings and small particulate from the metal block.* As shipped in mass form, this preparation is not considered to be a hazardous product and is not classifiable under the requirements of GHS.

**GHS Classification:** Flammable Solids, Category 1

2.2 **GHS Label Elements, including precautionary statements**

**Pictogram:**



**Signal Word:** Danger

**GHS Hazard Statements:** H228: Flammable Solid

**GHS Precautionary Statements:**

**Prevention:** P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280: Wear protective gloves, eye and face protection

**Response:** P370+P378: In case of fire use water as first choice. Sand, earth, dry chemical, foam or CO<sub>2</sub> may be used to extinguish.

**Storage:** None

**Disposal:** None

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS:** If shavings are fine or dust is produced, risk of explosion may exist.

**2.4 Additional Information**

**Primary Routes of Entry:**

Skin Contact: No  
Skin Absorption: No  
Eye Contact: No  
Ingestion: No  
Inhalation: No

**Emergency Overview:** When using the striker bar to ignite the magnesium shavings, care must be taken to prevent injury by burns to skin and eyes. When burned, fumes and smoke may be irritating to the respiratory tract. Magnesium burns with a white hot flame and may cause severe burns if in contact with skin.

**Effects of Short-Term (Acute) Exposure:**

**Inhalation:** This preparation is used to help start fires. The resulting smoke from burning any organic material may be hazardous to the respiratory tract. Prolonged or repeated inhalation may cause target organ damage (lungs).

**Skin Contact:** Skin contact with ignited product will cause significant burns.

**Eye Contact:** Sparks from the striker bar or ignited shavings of magnesium will cause extreme burns if allowed in contact with the eye. Smoke or vapours from the burning product may cause transient eye discomfort.

**Ingestion:** Accidental ingestion is unlikely due to form of product.

**Effects of Long-Term (Chronic) Exposure:**

No chronic health effects expected.

**Medical Conditions Aggravated By Exposure:** None known.

### 3. Composition

#### 3.1 Mixture composition

Component	% (w/w)	Exposure Limits (ACGIH)*	LD <sub>50</sub>	LC <sub>50</sub>
Magnesium CAS No 7439-95-4 EC No 231-104-6	70 – 80	N/d	N/av	N/av
Cerium CAS No 7440-45-1 EC No 231-154-9	5 – 15	N/d	N/av	N/av
Lanthanum CAS No 7439-91-0 EC No 231-099-0	5 - 10	N/d	N/av	N/av
Iron CAS No 7439-89-6 EC No 231-096-4	5 - 10	N/d	30000 mg/kg (oral/rat)	N/av
Non-hazardous ingredients or those below disclosure requirements	None	N/d	N/d	N/d
<b>GHS CLASSIFICATION:</b> FLAM SOLID, Cat 1				

\* ACGIH: American Conference of Governmental Industrial Hygienists. Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

**ABBREVIATION KEY:** N/p: not published, N/d: not determined, N/ap: not applicable, N/av: not available

### 4. First Aid Measures

#### 4.1 Description of First Aid Measures

**General advice:** Solid material has no health hazard. The below advice is for shavings and particles scraped from the magnesium block.

**In case of eye contact:** Immediately flush eyes with water for 10 minutes minimum. While rinsing eyes, hold eyelids open occasionally to more effectively cleanse the eye. Remove contact lenses, if safe to do so. If irritation occurs and persists, consult a doctor immediately.

**In case of skin contact:** If an irritation occurs or persists seek medical advice.

**If inhalation:** In the event of inhalation of smoke from the started fire, remove victim to fresh air. If breathing is laboured give artificial respiration or oxygen, if available. Seek medical attention if breathing remains difficult or discomfort occurs.

**If ingestion:** This product is not orally toxic if ingested. For a conscious person, spit out shavings immediately and rinse mouth with water. For an unconscious person, remove chips and pieces by finger. Seek immediate medical attention. Do NOT give anything to an unconscious person. If spontaneous vomiting occurs, have victim lean forward with head between knees to avoid aspirating vomitus. Rinse mouth and give 2 – 4 cups water, if conscious.

**4.2 Most important symptoms and effects, both acute and delayed**

**Effects of Short-Term (Acute) Exposure:**

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**Ingestion:** Accidental ingestion is unlikely due to form of product.

**Effects of Long-Term (Chronic) Exposure:**

No chronic health effects expected.

**Medical Conditions Aggravated By Exposure:** None known.

**4.3 Indication of any immediate medical attention and special treatment needed**

In the case of accidental ingestion, it is important to get treatment immediately.

## 5. Fire Fighting Measures

**5.1 Extinguishing Media**

**Suitable extinguishing media:** Preparation is flammable. When ignited use dry sand, earth or salt. Do not use water, foam, CO<sub>2</sub> or halogenated extinguishers except to extinguish the organic material fire.

**5.2 Special hazards arising from mixture:** When igniting, ensure care is taken not to burn the skin.

**Advice for firefighters:** In any fire situation, firefighters should wear full protective clothing including self contained breathing apparatus. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**5.3 Further Information:**

**Sensitivity to Impact:** No  
**Sensitivity to Static Discharge:** No

**HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS) HAZARD INDEX: Block**

HEALTH: 0

FLAMMABILITY: 0

REACTIVITY: 0

PERSONAL PROTECTION: None

**HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS) HAZARD INDEX: Dust and fine particles**

HEALTH: 2

FLAMMABILITY: 3

REACTIVITY: 2

PERSONAL PROTECTION: B

## 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

All spill responders involved in a cleanup of this product must follow good industrial hygiene practices. A small spill can be handled routinely. Wear suitable protective equipment and eye protection to prevent skin and eye contact. Extinguish all sources of ignition. Shovel into approved containers, properly labeled for disposal. Ensure spilled material is dry and away from water or acids. Avoid friction (rubbing with metallic objects) to prevent sparking which may ignite the shavings.

**Respiratory Protection:** To avoid inhaling dust, use N95 or similar respirators.

**Skin protection:** Wear suitable protective equipment to prevent skin contact.

**Eye and Face Protection:** Wear chemical goggles or full face protection.

**Footwear:** No specific recommendation.

**Other:** None

### 6.2 Environmental precautions

Shavings may be reactive with water and should be kept dry. This product is unlikely to cause damage to the environment other than causing fire. Ensure that spilled material does not enter sewers or natural waterways.

### 6.3 Methods and materials for containment and cleanup

Immediately remove all sources of heat/ignition. Clean up spills immediately to protect the environment from fire. Scoop or shovel up material place in an appropriate, properly labelled container for disposal.

**Remedial Measures:** Do not use unprotected hands to collect spilled material. Ensure proper protective equipment is used to prevent contact with skin and eyes.

**Large Spills:** Not applicable to this preparation.

**Small Spills:** Scoop or shovel up material place in an appropriate container for disposal, as above.

### 6.4 Reference to other sections

For disposal, see Section 13.

## 7. Handling and Storage

### 7.1 Precautions for safe handling

**Handling Procedures:** Prevent unnecessary friction! Wash thoroughly and immediately after handling this product and before eating, drinking, smoking or using the toilet.

### 7.2 Conditions for safe storage, including incompatibilities

**Storage: *Keep out of reach of children.*** Keep striker away from friction causing materials, heat, flame, and sources of ignition. Protect from sparks, heat or flame. Store away from incompatible materials such as strong oxidizers.

In bulk storage areas, post "NO SMOKING" signs. Have appropriate fire extinguishers located in an accessible place near storage area. Keep containers closed when not in use.

### 7.3 Specific end use(s)

No other uses except those mentioned in Section 1.2

## 8. Exposure Controls, Personal Protection

### 8.1 Control parameters

#### Components with workplace control parameters

No ingredient has a known workplace exposure limit listed.

### 8.2 Exposure Controls

**Engineering Controls:** Fire starter is designed to be used outdoor. Avoid breathing vapours from product or smoke from the flame, when ignited.

**Respiratory Protection:** Not applicable for consumers provided package instructions are followed. In circumstances of high concentration of smoke, a NIOSH approved air purifying respirator with N, P or R95 or HE filter and an organic vapour cartridge may be permissible. Approved N95 respirators may be used if dusting occurs.

**Skin protection:** Appropriate skin protection to prevent contact with shavings.

**Eye and Face Protection:** Safety glasses to prevent particulate or sparks from entering the eye.

**Footwear:** No specific recommendation.

**Other:** None

#### Control of environmental exposure

None

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance:</b>	Metallic dark grey solid block
<b>Odour:</b>	None
<b>Odour Threshold:</b>	Not applicable
<b>pH:</b>	Not applicable
<b>Melting Point/Freezing Point:</b>	> 600°C
<b>Initial Boiling Point:</b>	> 1000°C
<b>Flash Point:</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Flammability:</b>	Flammable
<b>Upper Explosion Limit:</b>	Not applicable
<b>Lower Explosion Limit:</b>	Not applicable
<b>Vapour Pressure:</b>	Not applicable
<b>Vapour Density:</b>	Not applicable
<b>Relative Density:</b>	~3.0 (water = 1)
<b>Solubility:</b>	Insoluble in water
<b>Partition Coefficient:</b>	Not applicable
<b>Autoignition Temperature:</b>	473°C (magnesium), 500°C (Cerium, Lanthanum solid)
<b>Decomposition Temperature:</b>	Not applicable
<b>Viscosity:</b>	Not applicable
<b>Explosive Properties:</b>	Not applicable
<b>Oxidizing Properties:</b>	Not applicable
<b>Percent Volatiles:</b>	Not applicable

### 9.2 Other safety information: None

## 10. Stability and Reactivity

### 10.1 Reactivity

The fire starter block, as sold, is stable and non-reactive. Fine material such as dust and fine shavings are reactive with water and may ignite while handling.

### 10.2 Chemical Stability

Stable under recommended storage conditions. Storage should be in a dry, clean area away from incompatible materials, sources of ignition and heat.

### 10.3 Possibility of hazardous reactions

Fire when ignited by hot enough ignition source or heat.

### 10.4 Conditions to avoid

Heat, sparks, flames, sources of ignition which may initiate burning. During fire, irritating and possible toxic gases may be generated by combustion. Keep away from incompatible materials.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

None known.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

**Acute toxicity**

No GHS classification

**Skin corrosion/irritation**

No GHS classification

**Serious eye damage/eye irritation**

No GHS classification

**Respiratory or skin sensitization**

No GHS classification

**Germ Cell Mutagenicity**

No GHS classification

**Carcinogenicity**

No GHS classification

**Reproductive toxicity**

No GHS classification

**Specific Target Organ Toxicity – Single exposure**

No GHS classification

**Specific Target Organ Toxicity – Repeated exposure**

No GHS classification

**Aspiration Hazard**

No GHS classification

**Aquatic Toxicity**

No GHS classification

**Additional information**

None

## 12. Ecological Information

### 12.1 Toxicity

**Aquatic**, Acute Aquatic Toxicity, Not classifiable

**Aquatic**, Chronic Aquatic Toxicity, Not classifiable



- 12.2 Persistence and degradability**  
No data available
- 12.3 Bioaccumulative potential**  
No data available
- 12.4 Mobility in soil**  
No data available
- 12.5 Results of PBT and vPvB assessment**  
Not conducted
- 12.6 Other adverse effects**  
No data available

## 13. Disposal Considerations

### 13.1 Waste treatment methods

**Product:**

Dispose of product according to all applicable local, state (provincial), and federal regulations. Offer to a licensed disposal company, properly contained and labelled.

**Contaminated Packaging:**

Not applicable.

## 14. Transport Information

**Transport of Dangerous Goods (TDG and CLR):**

UN 3178, FLAMMABLE SOLID, INORGANIC, N.O.S. (Cerium, Magnesium), Class 4.1, PG II

**United States Department of Transport (49CFR):**

UN 3178, FLAMMABLE SOLID, INORGANIC, N.O.S.(Cerium, Magnesium), Class 4.1, PG II

**International Air Transport Association (IATA):**

UN 3178, FLAMMABLE SOLID, INORGANIC, N.O.S.(Cerium, Magnesium), Class 4.1, PG II

**International Maritime Organization (IMO):**

UN 3178, FLAMMABLE SOLID, INORGANIC, N.O.S.(Cerium, Magnesium), Class 4.1, PG II  
EmS No F-A, S-G, Stowage Category B

## 15. Regulatory Information

### CANADIAN FEDERAL REGULATIONS:

CEPA, DOMESTIC SUBSTANCES LIST: Listed

### AMERICAN FEDERAL REGULATIONS:

TSCA: (Toxic Substance Control Act): Listed

SARA 302 Extremely hazardous substance: *Magnesium*: Not regulated  
*Cerium*: Not regulated  
*Lanthanum*: Not regulated  
*Iron*: Not regulated

SARA 311/312 Hazardous chemical: *Magnesium*: Fire Hazard, Reactivity Hazard, Chronic Health Hazard  
*Cerium*: Fire Hazard, Acute Health Hazard (powder)  
*Lanthanum*: Reactivity Hazard  
*Iron*: Fire Hazard

SARA 313 (TRI reporting): *Magnesium*: Not regulated  
*Cerium*: Not regulated  
*Lanthanum*: Not regulated  
*Iron*: Not regulated

### Other State Regulations:

#### ***Massachusetts Right to Know Components:***

*Magnesium*, CAS No 7439-95-4 Rev Date 1993-04-24

#### ***Pennsylvania Right to Know Components:***

*Magnesium*, CAS No 7439-95-4 Rev Date 1993-04-24  
*Cerium* (ingots, slabs and rods) CAS No 7440-45-1 Rev Date 2007-03-01  
*Lanthanum*, CAS No 7439-91-0 Rev Date not listed  
*Iron, powder*, CAS No 7439-89-6 Rev Date 1994-07-31

#### ***New Jersey Right to Know Components:***

*Magnesium*, CAS No 7439-95-4 Rev Date 1993-04-24  
*Cerium* (ingots, slabs and rods) CAS No 7440-45-1 Rev Date 2007-03-01  
*Lanthanum*, CAS No 7439-91-0 Rev Date not listed  
*Iron, powder*, CAS No 7439-89-6 Rev Date 1994-07-31

***California Prop 65 Components:*** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

### OTHER:

None

## 16. Other Information

**Original Preparation Date:** September 1, 2016

**Prepared by:** Technical Department, Coghlan's Ltd.

**Disclaimer:** This Safety Data Sheet (SDS) was prepared using information provided by CCINFO, ingredient supplier SDS and other relevant sources. This product has been classified using weight of evidence, expert judgment and previous testing as per Part 1.3 of the Fifth Edition of The Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The information in this SDS is offered for your consideration and guidance when exposed to this product. Coghlan's Ltd expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

***This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of Coghlan's Ltd.***

**Revisions:** Transport Classification Change, October 18, 2016