SAFETY DATA SHEET: MAGNESIUM, Powder

1. IDENTIFICATION

Product Name: MAGNESIUM, Powder
Synonyms: 
Formula and Formula Weight: Mg 24.305
Integra numbers beginning with: M017.5P
Recommended Use: Commercial/industrial use
Restrictions on Use: No information available

INTEGRA Chemical Company
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

2. HAZARDS IDENTIFICATION

OSHA Classification:  
Pyrophoric Solids 1  Catches fire spontaneously if exposed to air.
Substances and Mixtures which, in contact with Water, emit Flammable Gases 1  In contact with water releases flammable gases, which may ignite spontaneously.

Precautionary Statements
Prevention: Keep away from heat, sparks, open flames, hot surfaces. – No smoking.
Do not allow contact with air.
Do not allow contact with water.
Handle under inert gas. Protect from moisture.
Wear protective gloves, eye protection, face protection.

Response:  
Brush off loose particles from skin. Immerse in cool water, wrap in wet bandages.
In case of fire: Use dry graphite or other suitable dry powders to extinguish.

Storage:  
Store in a dry place. Store in a closed container.
Store contents under inert gas.

Disposal: Dispose of contents, container in accordance with all governmental regulations.

Hazards Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
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<tbody>
<tr>
<td>Magnesium</td>
<td></td>
<td>07439-95-4</td>
<td>100</td>
</tr>
</tbody>
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4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.
Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.
Skin Contact: Brush off loose particles from skin and immerse in cool water or wrap in wet bandages. Seek medical attention.
Ingestion: If conscious, rinse mouth and give victim large amounts of water. Seek medical attention.
Additional notes: Symptoms and effects include irritation of skin, eyes, respiratory tract; metal fume fever (fever, chills, nausea, vomiting, muscular pain).

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Smother fires with dry graphite or other suitable dry powders. Do not use foam, halogenated extinguishing agents or carbon dioxide. Application of water should be avoided, or conducted with great care to prevent splashing or spattering of molten or burning magnesium.
Special Equipment and Precautions: Do not use water to fight fire. Wear full protective equipment, including a self contained breathing apparatus.
Specific Hazards: Fire conditions may liberate toxic and noxious fumes. Powder, thin sheets, chips or turnings are easily ignited and burn with intense heat and brilliant white flame. Powders may form explosive mixtures with air.
Hazardous combustion products: Magnesium oxide fumes.
6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Remove all potential ignition sources. Prevent spread of spill. Wear suitable protective equipment. Sweep or scoop into disposal container in a manner that minimizes dust dispersion.

7. HANDLING AND STORAGE

Incompatible Materials: Incompatible with strong acids and strong oxidizers. Water, chlorine, bromine, iodine, halogens, methanol, hydrogen peroxide, sulfur compounds, metal oxides, tellurium, ethylene oxide, silver nitrate, alkali carbonates, soluble carbonates and phosphates, carbides.

Storage and Handling: Store in a cool, dry, well-ventilated flammable solids storage area or cabinet away from incompatible materials. Keep containers tightly closed and protect them from physical damage. Minimize exposure to air and light sources. Store and handle under inert gas. Protect from moisture. Do not allow contact with air or water.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA & ACGIH Exposure Limits:

- Magnesium: None identified

Engineering Controls: Use adequate general or local exhaust ventilation to keep fume and/or dust levels as low as possible.

Respiratory Protection: If use generates dusts, mists or vapors, use a NIOSH approved respirator with a particulate filter.

Skin/Eye Protective Equipment: Safety goggles, protective clothing and gloves appropriate for the risk of exposure. Wear fire retardant clothing. Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers. Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Silvery, grey powder
- Odor: Odorless
- Odor Threshold: Not available
- pH: Not available
- Melting/Freezing Point: 650 °C
- Initial Boiling Point and Boiling Range: 1100 °C
- Flash Point: Not available
- Evaporation Rate: Not available
- Flammability: Flammable solid
- Flammable or Explosive Lower: 0.03 kg/m³
- Limits (% by volume in air) Vapor Pressure: Not available
- Vapor Density: Not available
- Relative Density: 1.7 g/cc
- Solubility: Decomposes in water
- Partition Coefficient: n-octanol/water Not available
- Auto-Ignition Temperature: 473 °C
- Decomposition Temperature: Not available
- Viscosity: Not available

10. STABILITY AND REACTIVITY

- Reactivity: No information available
- Stability: Stable
- Possibility of Hazardous Reactions: Hazardous polymerization will not occur. May spontaneously ignite on contact with air or moisture. Reacts violently with water, chlorine, bromine, iodine, halogens, methanol, hydrogen peroxide, sulfur compounds, metal oxides, tellurium, ethylene oxide, silver nitrate, alkali carbonates, soluble carbonates and phosphates, carbides.
- Conditions to Avoid: Heat, sparks and open flame. Air and moisture.
- Incompatibles: Incompatible with strong acids and strong oxidizers. Water, chlorine, bromine, iodine, halogens, methanol, hydrogen peroxide, sulfur compounds, metal oxides, tellurium, ethylene oxide, silver nitrate, alkali carbonates, soluble carbonates and phosphates, carbides.
- Decomposition Products: Magnesium oxide fumes.

11. TOXICOLOGICAL INFORMATION

- Effects of Over Exposure:
  - Inhalation: Dusts may cause respiratory irritation. Exposure to fumes can cause metal fume fever which is characterized by fever, chills, nausea, vomiting and muscular pain.
  - Skin Contact: Particles embedded in the skin may produce gaseous blisters.
  - Eye Contact: Dusts may cause some eye irritation.
  - Ingestion: May be harmful if swallowed.
  - Chronic Effects: No information available
  - Target Organs: No information available
12. ECOLOGICAL INFORMATION

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<tr>
<th>Magnesium</th>
<th>LDLo (oral, dog)</th>
<th>230 mg/kg</th>
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Aquatic Toxicity Data: No information available
Terrestrial Toxicity Data: No information available

Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility in soil: No information available
Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

14. TRANSPORTATION INFORMATION

This product is a regulated material for domestic ground transporation, per CFR Title 49.

- UN Number: UN1418
- Proper Shipping Name: Magnesium
- Packing Group: II
- Hazard Class: 4.3
- Subsidiary Risk: 4.2
- Environmental hazards: No information available
- Special precautions: No information available
- Bulk transport: No information available

15. REGULATORY INFORMATION

Magnesium is listed in the TSCA inventory.

16. OTHER INFORMATION

OSHA SDS #: 25857 rev 101 5.27.2015

NE = Not established, NA = Not applicable or Not available
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***** END OF SDS *****