SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Magnesium Ribbon

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25397A

Recommended uses of the product and restrictions on use:

Manufacturer Details:
AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:
Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
(724)517-1954

Emergency telephone number:
Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2: Hazards identification

Classification of the substance or mixture:

- Flammable
  - Flammable solids, category 1
  - Flammable gases, category 1
- Pyrophoric solids. 1
- Emits Flamm. gas with water contact

Signal word: Danger

Hazard statements:
Catches fire spontaneously if exposed to air
In contact with water releases flammable gases which may ignite spontaneously

Precautionary statements:
If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Keep away from heat/sparks/open flames/hot surfaces. No smoking
Do not allow contact with air
Keep away from any possible contact with water, because of violent reaction and possible flash fire
Handle under inert gas. Protect from moisture
Wear protective gloves/protective clothing/eye protection/face protection
Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages
In case of fire: Use agents recommended in section 5 for extinction
Store in a dry place. Store in a closed container
Dispose of contents and container as instructed in Section 13

Other Non-GHS Classification:
WHMIS
**Safety Data Sheet**

*according to 29CFR1910/1200 and GHS Rev. 3*

**Effective date**: 02.11.2015

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**Magnesium Ribbon**

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**NFPA/HMIS**

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**SECTION 3 : Composition/information on ingredients**

**Ingredients:**

<table>
<thead>
<tr>
<th>CAS 7439-95-4</th>
<th>7439-95-4</th>
<th>&gt;90 %</th>
</tr>
</thead>
</table>

Percentages are by weight

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**SECTION 4 : First aid measures**

**Description of first aid measures**

**After inhalation:** Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position. Seek medical assistance if cough or other symptoms appear.

**After skin contact:** Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or if concerned.

**After eye contact:** Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Seek medical attention if irritation persists or concerned.

**After swallowing:** Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if irritation, discomfort, or vomiting persists.

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


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

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

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**SECTION 5 : Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:** Dry powder

**For safety reasons unsuitable extinguishing agents:** Water spray. Carbon dioxide extinguishers.

**Special hazards arising from the substance or mixture:**

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Combustible dust formation is a risk. Thermal decomposition can lead to release of irritating gases and vapors. Water cannot extinguish magnesium fires. The hydrogen gas produced only intensifies the fire.

Advice for firefighters:
- **Protective equipment**: Wear protective eyeware, gloves, and clothing. Refer to Section 8.
- **Additional information (precautions)**: Avoid dust generation. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

**SECTION 6 : Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**
Ensure adequate ventilation. Ensure that air-handling systems are operational.

**Environmental precautions:**
Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

**Methods and material for containment and cleaning up:**
Sweep up and shovel. Contain spillage. Collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations. Wear protective eyeware, gloves, and clothing. Refer to Section 8. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal.

**Reference to other sections:**

**SECTION 7 : Handling and storage**

**Precautions for safe handling:**
Combustible dust formation is a risk. Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

**Conditions for safe storage, including any incompatibilities:**

**SECTION 8 : Exposure controls/personal protection**

**Control Parameters:**
No applicable occupational exposure limits

**Appropriate Engineering controls:**
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**Respiratory protection:**
Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.
Protection of skin: Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection: Face shield and safety glasses are appropriate eye protection. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

General hygienic measures: Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before rewearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance (physical state,color):</th>
<th>Silver White Solid</th>
<th>Explosion limit lower: Not Determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>Not Determined</td>
<td>Vapor pressure: 1 hPa at 621 °C</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not Determined</td>
<td>Vapor density: Not Determined</td>
</tr>
<tr>
<td>pH-value:</td>
<td>Not Determined</td>
<td>Relative density: 1.74 g/cm³ at 25 °C</td>
</tr>
<tr>
<td>Melting/Freezing point:</td>
<td>650 °C</td>
<td>Solubilities: Insoluble in water</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>1107 °C</td>
<td>Partition coefficient (n-octanol/water): Not Determined</td>
</tr>
<tr>
<td>Flash point (closed cup):</td>
<td>Not Determined</td>
<td>Auto/Self-ignition temperature: Not Determined</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not Determined</td>
<td>Decomposition temperature: Not Determined</td>
</tr>
<tr>
<td>Flammability (solid,gaseous):</td>
<td>Flammable</td>
<td>Viscosity: a. Kinematic:Not Determined</td>
</tr>
<tr>
<td>Density</td>
<td>Not Determined</td>
<td>b. Dynamic: Not Determined</td>
</tr>
<tr>
<td>Additional property: Hygroscopic (absorbs moisture from the air)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 10 : Stability and reactivity

Reactivity: Reacts violently with water.
Chemical stability: Stable under normal conditions.
Possible hazardous reactions: Emits flammable gas when in contact with water.
Conditions to avoid: Air and moisture sensitive. Incompatible materials.
Incompatible materials: Strong oxidizing agents, acids, Acid chlorides, Halogens
Hazardous decomposition products: Magnesium oxide

SECTION 11 : Toxicological information

Acute Toxicity: No additional information.
Chronic Toxicity: No additional information.
Magnesium Ribbon

**Corrosion Irritation**: No additional information.

**Sensitization**: No additional information.

**Single Target Organ (STOT)**: No additional information.

**Numerical Measures**: No additional information.

**Carcinogenicity**: No additional information.

**Mutagenicity**: No additional information.

**Reproductive Toxicity**: No additional information.

### SECTION 12 : Ecological information

**Ecotoxicity Persistence and degradability**:

**Bioaccumulative potential**:

**Mobility in soil**:

**Other adverse effects**:

### SECTION 13 : Disposal considerations

**Waste disposal recommendations**:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

### SECTION 14 : Transport information

**UN-Number**

1869

**UN proper shipping name**

Magnesium

**Transport hazard class(es)**

- **Class**: 4.1 Flammable solids, self-reactive substances and solid desensitized explosives

**Packing group**: III

**Environmental hazard**:

**Transport in bulk**:

**Special precautions for user**:

### SECTION 15 : Regulatory information

**United States (USA)**

- **SARA Section 311/312 (Specific toxic chemical listings)**:

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Created by Global Safety Management, 1-813-435-5161 - www.GSMSDS.com
Magnesium Ribbon

Reactive, Chronic, Fire

**SARA Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed

**RCRA (hazardous waste code):**
None of the ingredients is listed

**TSCA (Toxic Substances Control Act):**
All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**
7439-95-4 Magnesium 10 lbs

**Proposition 65 (California):**

- **Chemicals known to cause cancer:**
  None of the ingredients is listed
- **Chemicals known to cause reproductive toxicity for females:**
  None of the ingredients is listed
- **Chemicals known to cause reproductive toxicity for males:**
  None of the ingredients is listed
- **Chemicals known to cause developmental toxicity:**
  None of the ingredients is listed

**Canada**

- **Canadian Domestic Substances List (DSL):**
  All ingredients are listed.
- **Canadian NPRI Ingredient Disclosure list (limit 0.1%):**
  None of the ingredients is listed
- **Canadian NPRI Ingredient Disclosure list (limit 1%):**
  None of the ingredients is listed

**SECTION 16 : Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**GHS Full Text Phrases:**

**Abbreviations and acronyms:**

- **Effective date**: 02.11.2015
- **Last updated**: 05.08.2015