1. Product and Company Identification

Trade Name: Magnesium nitride
Chemical Formula: Mg₃N₂
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger

Hazard Statements: H315 Causes skin irritation
H319 Causes serious eye irritation
H228: Flammable solid
H335: May cause respiratory irritation

Precautionary Statements: P261 Avoid breathing dust/fume/vapor
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):
Health: 2
Flammability: 2
Physical: 2
3. Composition

**Chemical Family:** Ceramic  
**Additional Names:** None

**Magnesium nitride (Mg₃N₂):**  
- **Percentage:** 100 wt%  
- **CAS #:** 12057-71-5  
- **EC #:** 235-022-1

4. First Aid Procedures

**General Treatment:** Seek medical attention if symptoms persist.  
**Special Treatment:** None  
**Important Symptoms:** None

**Inhalation:** Remove victim to fresh air. Supply oxygen if breathing is difficult.  
**Ingestion:** Seek medical attention.  
**Skin:** Wash affected area with mild soap and water. Remove any contaminated clothing.  
**Eyes:** Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

5. Firefighting Measures

**Flammability:** Flammable  
**Extinguishing Media:** Do not use water for metal fires – use CO₂, sand, extinguishing powder.  
**Spec. Fire Fighting Procedure:** Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

**If Material Is Released/Spilled:** Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.  
**Environmental Precautions:** Isolate runoff to prevent environmental pollution.

7. Handling and Storage

**Handling Conditions:** Handle under dry protective gas. Wash thoroughly after handling.  
**Storage Conditions:** Store in a cool dry place in a tightly sealed container. Store under dry protective gas. Store apart from materials and conditions listed in section 10.  
**Work/Hygienic Maintenance:** Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.  
**Ventilation:** Provide sufficient ventilation to maintain concentration at or below threshold limit.
### 8. Exposure Controls and Personal Protection

<table>
<thead>
<tr>
<th>Permissible Exposure Limits:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold Limit Value:</td>
<td>N/A</td>
</tr>
<tr>
<td>Special Equipment:</td>
<td>None</td>
</tr>
<tr>
<td>Respiratory Protection:</td>
<td>Dust Respirator</td>
</tr>
<tr>
<td>Protective Gloves:</td>
<td>Rubber gloves</td>
</tr>
<tr>
<td>Eye Protection:</td>
<td>Safety glasses or goggles</td>
</tr>
<tr>
<td>Body Protection:</td>
<td>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</td>
</tr>
</tbody>
</table>

### 9. Physical and Chemical Characteristics

<table>
<thead>
<tr>
<th>Color</th>
<th>Beige</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form:</td>
<td>Powder, Pieces, Sputtering target</td>
</tr>
<tr>
<td>Odor:</td>
<td>N/A</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>N/A</td>
</tr>
<tr>
<td>Autoignition Temperature:</td>
<td>N/A</td>
</tr>
<tr>
<td>Density:</td>
<td>2.712 g/cc</td>
</tr>
<tr>
<td>Molecular weight:</td>
<td>100.93 g/mol</td>
</tr>
</tbody>
</table>

### 10. Reactivity

| Stability: | Stable under recommended storage conditions |
| Reacts With: | Oxidizing agents |
| Incompatible Conditions: | Air, Water/moisture |
| Hazardous Decomposition Products: | Metal oxide fume, Nitrogen oxides |

### 11. Toxicological Information

**Potential Health Effects:**
- **Eyes:** Causes serious eye damage
- **Skin:** Causes skin irritation
- **Ingestion:** May cause irritation
- **Inhalation:** May cause irritation
- **Chronic:** Inhalation of magnesium compounds may cause metal fume fever. Metallic magnesium which perforates the skin may cause local lesions. Some magnesium salts have produced muscle weakness, cardiac arrhythmias, respiratory effects and changes in blood chemistry following ingestion.

| Signs & Symptoms: | N/A |
| Aggravated Medical Conditions: | N/A |
| Median Lethal Dose: | N/A |
| Carcinogen: | N/A |

### 12. Ecological Information

| Aquatic Toxicity: | Low |
| Persistent Bioaccumulation Toxicity: | No |
| Very Persistent, Very Bioaccumulative: | No |
| Notes: | N/A |
13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation.

Hazard Class: 4.1 Flammable solids, self-reactive substances and solid desensitized explosives
Packing Group: II
UN Number: UN3178
Proper Shipping Name: Flammable solid, inorganic, n.o.s. (Magnesium nitride)

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: No

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

Document Last Revised: 06/30/2015