



LTS Research Laboratories, Inc.
Safety Data Sheet
Magnesium Metal

1. Product and Company Identification

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

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 2001 Oaks Pkwy
City: Belmont
State: North Carolina
Zip Code: 28012
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: H228 Flammable solid
H251 Self-heating: may catch fire
H261 In contact with water releases flammable gas

Precautionary Statements: P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking
P222: Do not allow contact with air
P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire
P231+P232: Handle under inert gas. Protect from moisture
P235 + P410: Keep cool. Protect from sunlight
P240: Ground/bond container and receiving equipment
P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment
P280: Wear protection gloves/protective clothing/eye protection/ face protection
P335 + P334: Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages
P370+P378: In case of fire use special powder for metal fires for extinction
P402 + P404: Store in a dry place. Store in a closed container
P403 + P235: Store in a well-ventilated place. Keep cool
P407: Maintain air gap between stacks/ pallets
P420: Store away from other materials
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

	Powder	Pieces	Bulk
Health:	1	1	0
Flammability:	4	2	1
Physical:	2	2	1

3. Composition

Chemical Family:	Metal
Additional Names:	None, not to be confused with manganese
Magnesium (Mg):	
Percentage:	100 wt.%
CAS #:	7439-95-4
EC #:	231-104-6

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:	Spontaneously flammable as powder. Flammable as small or thin pieces. Contact with water may release flammable gases.
Extinguishing Media:	Do not use water for metal fires – use CO ₂ , 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:	Keep away from ignition sources. Do not clean with water or water based cleaning agents. 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 inert 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

Permissible Exposure Limits:	None
Threshold Limit Value:	None
Special Equipment:	None
Respiratory Protection:	Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber, NBR 0.11mm thick.
Penetration time of glove material:	480 minutes
Eye Protection:	Safety glasses or goggles, Full face protection
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	White or Silver
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Contact with water releases flammable gases (as powder/pieces)
Boiling Point:	1090 °C
Melting Point:	648 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	1.738 g/cc (at 20 °C)
Molecular weight:	24.305 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts with:	Contact with water releases flammable gases. Catches fire spontaneously if exposed to air, Acids, Bases, Nitrogen, Oxidizing Agents
Incompatible Conditions/Materials:	Air, Water/Moisture
Hazardous Decomposition Products:	Magnesium oxide

11. Toxicological Information

Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	N/A

13. Disposal Considerations

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

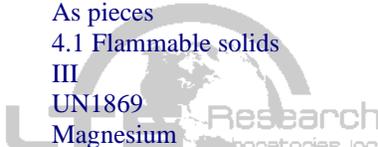
14. Transportation Data



Hazardous:	As powder form
Hazard Class:	4.3 Substances which in contact with water release flammable gas
Secondary Class:	4.2 Spontaneously combustible solids
Packing Group:	II
UN Number:	UN1418
Proper Shipping Name:	Magnesium powder



Hazardous:	As pieces
Hazard Class:	4.1 Flammable solids
Packing Group:	III
UN Number:	UN1869
Proper Shipping Name:	Magnesium



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.

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