



LTS Research Laboratories, Inc.
Safety Data Sheet
Magnesium Titanium Alloy

1. Product and Company Identification

Trade Name: Magnesium Titanium Alloy
Chemical Formula: MgTi
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: H228: Flammable solid.
H250: Catches fire spontaneously if exposed to air
H260: In contact with water releases flammable gases which may ignite spontaneously

Precautionary Statements: P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P223: Do not allow contact with water
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 protective gloves/ 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 dry sand, dry chemical or alcohol-resistant foam to extinguish
P402+P404: Store in a dry place. Store in a closed container.
P407: Maintain air gap between stacks/ pallets
P420: Store away from other materials
P501: Dispose of contents/ container to an approved waste disposal plant

HMIS Health Ratings (0-4):
Health: 1
Flammability: 4
Physical: 2

3. Composition

Material Family: Metal alloy
Additional Names: N/A

Magnesium (Mg):
Percentage: 0-100 wt%
CAS #: 7439-95-4
EC #: 231-104-6

Titanium (Ti):
Percentage: 0-100 wt%
CAS #: 7440-32-6
EC #: 231-142-3

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. Keep patient warm. Seek immediate medical attention.
Ingestion: Seek immediate medical attention.
Skin: Immediately wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.

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 special powder for metals.
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. Keep unprotected persons away. 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. Do not flush with water or aqueous cleansing agents.
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 inert gas. Store away from air, oxidizing agents, halogens, halocarbons, mineral acids. This product is air and moisture sensitive. 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:	N/A
Threshold Limit Value:	N/A
Special Equipment:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Respiratory Protection:	Use a recommended dust respirator or mask. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber gloves with minimum thickness of at least 0.11 mm
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Silver, grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Contact with water releases flammable gases.
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	N/A
Molecular weight:	N/A

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	In contact with water releases flammable gases, which may ignite spontaneously. Catches fire spontaneously if exposed to air. Oxidizing agents, nitrogen, acids, acid chlorides, halogens, halocarbons, mineral acids, oxygen, aluminum, carbon dioxide
Incompatible Conditions:	Air, water/moisture
Hazardous Decomposition Products:	Metal oxide fume, titanium/titanium oxides, 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: Burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, chills, fever, fatigue, muscle pain, joint pain, rash, anorexia.

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

12. Ecological Information

Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	Do not allow material to be released to the environment without proper governmental permits. Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment.

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous as powder only.



Hazard Class: 4.3 Dangerous when wet
Secondary class: 4.2 Spontaneously combustible material
Packing Group: II
UN Number: UN3209
Proper Shipping Name: Metallic substance, water-reactive, self-heating, n.o.s. (Magnesium Titanium Alloy)

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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