

## LTS Research Laboratories, Inc. Safety Data Sheet Magnesium Tungstate

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	5. Firefighting Measures
	Non-flammable, except as powder
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for
Spec. Fire Fighting Procedure:	surrounding material and type of fire. 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: Environmental Precautions:	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.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.
	7. Handling and Storage
Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. 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
Ventilation:	compressed air. 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:	$5 \text{ mg/m}^3$ as W, long-term value
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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:	chemicals and having an average face velocity of at least 100 feet per minute. Dust Respirator
Respiratory Protection: Protective Gloves:	chemicals and having an average face velocity of at least 100 feet per minute. Dust Respirator Rubber gloves
Respiratory Protection: Protective Gloves: Eye Protection:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> </ul>
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Respiratory Protection: Protective Gloves: Eye Protection: Body Protection:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> <li>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</li> </ul> 9. Physical and Chemical Characteristics White
Respiratory Protection: Protective Gloves: Eye Protection: Body Protection: Color Form:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> <li>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</li> <li>9. Physical and Chemical Characteristics</li> <li>White</li> <li>Powder, Granules, Pellets, Sputtering target, Custom parts</li> </ul>
Respiratory Protection: Protective Gloves: Eye Protection: Body Protection: Color Form: Odor:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> <li>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</li> </ul> 9. Physical and Chemical Characteristics White Powder, Granules, Pellets, Sputtering target, Custom parts Odorless
Respiratory Protection: Protective Gloves: Eye Protection: Body Protection: Color Form: Odor: Water Solubility:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> <li>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</li> </ul> 9. Physical and Chemical Characteristics White Powder, Granules, Pellets, Sputtering target, Custom parts Odorless Insoluble
Respiratory Protection: Protective Gloves: Eye Protection: Body Protection: Color Form: Odor: Water Solubility: Boiling Point:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> <li>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</li> </ul> 9. Physical and Chemical Characteristics White Powder, Granules, Pellets, Sputtering target, Custom parts Odorless Insoluble N/A
Respiratory Protection: Protective Gloves: Eye Protection: Body Protection: Color Form: Odor: Water Solubility: Boiling Point: Melting Point:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.         <ul> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> <li>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</li> </ul> </li> <li>9. Physical and Chemical Characteristics         <ul> <li>White</li> <li>Powder, Granules, Pellets, Sputtering target, Custom parts Odorless</li> <li>Insoluble</li> <li>N/A</li> <li>N/A</li> </ul> </li> </ul>
Respiratory Protection: Protective Gloves: Eye Protection: Body Protection: Color Form: Odor: Water Solubility: Boiling Point: Melting Point: Flash Point:	<ul> <li>chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Dust Respirator</li> <li>Rubber gloves</li> <li>Safety glasses or goggles</li> <li>Protective work clothing. Wear close-toed shoes and long sleeves/pants.</li> </ul> 9. Physical and Chemical Characteristics White Powder, Granules, Pellets, Sputtering target, Custom parts Odorless Insoluble N/A </td
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	10. Reactivity
Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents, strong acids, strong bases
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal oxide fume
	11. Toxicological Information
Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause 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. Tungsten compounds may be irritating to the eyes and respiratory tract. Chronic exposure may result in permanent lung damage.
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.</li> </ul>
	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. Avoid transfer into the environment.
	13. Disposal Considerations

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

14. Transportation Data			
Hazardous:	Not hazardous for transportation.		
Hazard Class:	N/A		
Packing Group:	N/A		
UN Number:	N/A		
Proper Shipping Name:	N/A		
	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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