



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Barium Manganate

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1. Product and Company Identification

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Trade Name: Barium Manganate  
Chemical Formula: BaMnO<sub>4</sub>  
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)

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2. Hazards Identification

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Signal Word: Danger



Hazard Statements: H272: May intensify fire; oxidizer  
H302+H332: Harmful if swallowed or if inhaled

Precautionary Statements: P210 Keep away from heat.  
P220 Keep/Store away from clothing/ combustible materials.  
P221 Take any precaution to avoid mixing with combustibles.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ eye protection/ face protection.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P501 Dispose of contents/ container to an approved waste disposal plant.

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

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### 3. Composition

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Chemical Family: Ceramic  
Additional Names: Barium Manganese Oxide

Barium Manganate (BaMnO<sub>4</sub>):  
Percentage: 100 wt%  
CAS #: 7787-35-1  
EC #: 232-109-6

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### 4. First Aid Procedures

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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: Give one to two glasses of water. Never induce vomiting or give anything by mouth to an unconscious person.  
Skin: Wash affected area with mild soap and water. Remove any contaminated clothing. Seek medical attention.  
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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### 5. Firefighting Measures

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Flammability: May intensify fire: Oxidizer  
Extinguishing Media: No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.  
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.

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### 6. Accidental Release Measures

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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. Avoid breathing vapors, mist or gas.  
Environmental Precautions: Isolate runoff to prevent environmental pollution.

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### 7. Handling and Storage

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Handling Conditions: Wash thoroughly after handling.  
Storage Conditions: Store in a cool dry place in a tightly sealed container. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Keep away from heat and sources of ignition. Material is 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.

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## 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	0.2 mg/m <sup>3</sup> as BaMnO <sub>4</sub> , long-term value (California permissible exposure limit)
Threshold Limit Value:	0.2 mg/m <sup>3</sup> as BaMnO <sub>4</sub> , long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Nitrile Rubber gloves, minimum thickness of 0.11 mm
Eye Protection:	Safety glasses or goggles. Conforms to EN166 or government standards such as NIOSH (US) or EN 166(EU).
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## 9. Physical and Chemical Characteristics

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Color	Dark Grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	4.85 g/cc (at 25 °C)
Molecular weight:	256.26 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Acids, Reducing Agents, Oxidizing agents. May intensify fire if exposed to heat source or flame.
Incompatible Conditions:	Moisture
Hazardous Decomposition Products:	Metal oxide fume, Barium Oxide, Manganese/Manganese Oxides.

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	Harmful if swallowed
Inhalation:	Harmful if inhaled
Chronic:	Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness and weakness in the legs. A stolid mask-like appearance of the face, emotional disturbances such as uncontrollable laughter and a spastic gait with tendency to fall in walking are findings in more advanced cases. High incidence of pneumonia has been found in workers exposed to the dust or fume of some manganese compounds., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Signs & Symptoms:	Men exposed to manganese dusts showed a decrease in fertility.
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	?? mg/kg for rat by mouth
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.

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 identified as a carcinogen or potential carcinogen by OSHA.

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#### 12. Ecological Information

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

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#### 13. Disposal Considerations

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

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#### 14. Transportation Data

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Hazardous:	Hazardous for transportation
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Hazard Class:	5.1 Oxidizing Solid
Packing Group:	II
UN Number:	UN 1479
Proper Shipping Name:	Oxidizing solid, n.o.s. (Barium manganate)

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#### 15. Regulatory Information

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

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#### 16. Other Information

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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:	10/11/2018
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