



LTS Research Laboratories, Inc.
Safety Data Sheet
Copper Magnesium-doped

1. Product and Company Identification

Trade Name: Copper magnesium-doped
Chemical Formula: Cu-Mg
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
H251: Self-heating; may catch fire
H261: In contact with water releases flammable gas
H319 Causes serious eye irritation
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
P231+P232: Handle under inert gas. Protect from moisture
P280: Wear protective gloves/protective clothing/eye protection/face protection
P370+P378: In case of fire: Use Special powders for metal fires for extinction
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P420: Store away from other materials
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

| HMIS Health Ratings (0-4): | Powder | Bulk |
|----------------------------|--------|------|
| Health: | 1 | 0 |
| Flammability: | 3 | 0 |
| Physical: | 1 | 0 |

3. Composition

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| Chemical Family: | Alloy |
| Additional Names: | None |
| Copper (Cu): | |
| Percentage: | 95-100 wt% |
| CAS #: | 7440-50-8 |
| EC #: | 231-159-6 |
| Magnesium (Mg): | |
| Percentage: | 0-5 wt% |
| CAS #: | 7439-95-4 |
| EC #: | 231-104-6 |

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: | 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

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| Flammability: | Flammable as powder |
| Extinguishing Media: | Do not use water for metal fires – use special powder for metal fires. |
| 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

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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. |
| Environmental Precautions: | Isolate runoff to prevent environmental pollution. |

7. Handling and Storage

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| 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 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

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| Permissible Exposure Limits: | 0.1 mg/m ³ as Cu, metal fume, long-term value 1 mg/m ³ as Cu, metal dusts and mists, long-term value |
| Threshold Limit Value: | 0.2 mg/m ³ as Cu, metal fume, long-term value 1 mg/m ³ as Cu, metal dusts and mists, long-term value |
| Special Equipment: | None |
| Respiratory Protection: | Dust Respirator |
| Protective Gloves: | Rubber gloves |
| Eye Protection: | Safety glasses or goggles |
| Body Protection: | Protective work clothing. Wear close-toed shoes and long sleeves/pants. |

9. Physical and Chemical Characteristics

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| Color | Red to Bronze |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | Insoluble |
| Boiling Point: | N/A |
| Melting Point: | 650-1083 °C |
| Flash Point: | N/A |
| Autoignition Temperature: | N/A |
| Density: | N/A |
| Molecular weight: | N/A |

10. Reactivity

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

11. Toxicological Information

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| Potential Health Effects: | |
| Eyes: | Causes serious eye damage |
| 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: | >5000 mg/kg for mouse by mouth |
| Carcinogen: | The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance. EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available |

12. Ecological Information

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| Aquatic Toxicity: | High |
| Persistent Bioaccumulation Toxicity: | No |
| Very Persistent, Very Bioaccumulative: | No |
| Notes: | May cause long lasting harmful effect on aquatic life. Do not allow material to be released to the environment without proper governmental permits. Also poisonous for fish and plankton in water bodies. Avoid transfer into the environment. Toxic to aquatic life. |

13. Disposal Considerations

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

14. Transportation Data

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| Hazardous: | Hazardous as powder only. |
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| Hazard Class: | 4.1 Flammable solids |
| Packing Group: | III |
| UN Number: | UN3089 |
| Proper Shipping Name: | Metal powders, flammable, n.o.s. (Copper magnesium) |

15. Regulatory Information

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

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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| Document Last Revised: | 07/24/2015 |
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