

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200 Standard must be consulted for specific requirements.

Section 1

Manufacturer's Name: M&M Industries, Inc. Address: 800 W. Front Street Chester, PA 19013	Chemical Name and Synonyms: Zinc Emergency Number: Chemtrec 800 424 9300 M&M Industries 610 447 0663	Trade Name and Synonyms: Zinc Anodes Formula: Zn (Cd & Al <1%)
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Section 2 - Hazardous Ingredients**Section 313 Supplier Notification**

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS# 7440-66-6 Zinc 99.0% by weight ~ CAS# 7429-90-5 Aluminum <1% by weight ~ CAS# 7440-43-9 Cadmium <1% by weight

This information must be included in all Material Safety Data Sheets that are distributed for this material. No other hazardous material is present in concentration greater than 1%.

Section 3 - Physical Data

Boiling Point: 907° C	Solubility in Water: Insoluble	Percent, Volatile by Volume: NA
Vapor Pressure: 1mm Hg at 487° C	Vapor Density: NA	Evaporation Rate () = 1: NA
Appearance and Odor: Bluish-white, lustrous, metallic element, no odor	Specific Gravity: 7.14 at 25° C	Melting Point: 419.8° C

Section 4 - Fire and Explosive Hazard Data

Flash Point (Method Used): NA ~ Flammable Limits: NA
Special Fire Fighting Procedures: DO NOT use water, carbon dioxide foam or powder.
Wear OSHA/NIOSH approved self-contained breathing apparatus and full protective clothing.
Unusual Fire and Explosions Hazards: Water contact with molten metal may cause explosion. Condensed zinc dust may form explosive mixture with air.
Contact with acids and alkalis may cause explosion in poorly ventilated areas.

Section 5 - Reactivity Data

Stability: Stable in dry air.
Conditions to avoid: Flammable in the form of dust when exposed to heat and/or flame.
Incompatibility (Materials to avoid): Contact with oxidizing agents, acids, alkalis and halogenated hydrocarbons.
Hazardous Decomposition Products: When heated to temperatures above the melting point it emits toxic fumes of ZnO.
Hazardous Polymerization: NA
Conditions to avoid: NA

Section 6 - Health Hazard Data

Threshold Limit value:
OSHA PEL - 5 mg/m³, 8 hour TWA (ZnO fume only) NIOSH REL - 5 mg/m³, 10 hour TWA (ZnO fume only)
ACGIH TLV - 5 mg/m³, 8 hour TWA (ZnO fume only) ACGIH TLV - 10 mg/m³, 8 hour TWA (ZnO dust only)
Routes of Entry:
Inhalation: Fume or dust may cause irritation ~ Skin: Zn dust may cause mild dermatitis. ~ Ingestion: Zn fume (see Effects of Overexposure.)
Eyes: Dust and/or fume only.
Effects of Overexposure: Zinc in metal form is relatively non-toxic. Exposure to ZnO fume may cause metal fume fever, which has flu-like symptoms, chills, fever, tightness in the chest and cough. Repeated overexposure may cause prolonged forms of metal fume fever.
Prolonged or repeated skin contact with zinc dust may cause mild dermatitis.
Emergency and First Aid Procedures:
Inhalation: Remove to fresh air; Contact a physician.
Skin: Wash affected area with mild soap and water. Contact a physician if symptoms persist.
Ingestion: Dilute stomach contents with milk or water. Contact a physician if symptoms persist.
Eyes: Flush with running water for five minutes. Contact a physician if symptoms persist.
Carcinogenic Information: Zinc in metal form is non-carcinogenic.
Medical Conditions Generally Aggravated by this Material: Sensitive skin and chronic respiratory problems.

Section 7 - Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Zinc can be safely swept, shoveled or picked up by hand. Wear protective clothing.
Return spilled material in accordance with applicable regulations.
Waste Disposal Method: Dispose of in accordance with Federal, State, and Local laws and regulations.
Precautions to be taken in handling and storage: Store in a dry area, in properly labeled containers. Keep away from known incompatibly materials.
See Section 5 for incompatibilities.
Other Precautions: NA

Section 8 - Control Measures

Respiratory Protection (Specify Type): Used approved OSHA/NIOSH respirator when exposed to ZnO fume or dust.
Ventilation: Local Exhaust: As required for ZnO fume. ~ Mechanical (General): As required ~ Other: NA
Protective Gloves: As needed for work with molten metal
Eye Protection: As needed for fumes, dust and/or heat.
Other Protective Equipment: Full protective clothing appropriate for the handling and processing of molten metal, etc....
Work/Hygienic Practices: Refrain from all eating, drinking and/or smoking in working areas. Wash thoroughly after handling zinc.

Section 9 - Environmental

EPA Hazardous Substance: No.
Waste Disposal Methods: Dependent on lead and cadmium concentrations
DOT Hazard classification: None
DOT Label requirement: None
DOT Identification number: None

Revised: September 6, 2007

This Material Safety Data Sheet is offered solely for your information, consideration and investigation.

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