

Material Safety Data Sheet



24 Hour Emergency Number:
1(204)687-2291

General Inquiries:
1(204)687-2691

| WHMIS | Protective Clothing | TDG Road/Rail |
|--------------------------|---|---|
| Not A Controlled Product |  | TDG: Not Regulated IATA: Not Regulated |

| Section I. Product Identification and Uses | |
|---|--|
| Product Name(s) | Zinc Metal - Special High Grade (Pure Grades) |
| Chemical Name | Zinc Metal - Special High Grade (Pure Grades) |
| Supplier | Hudson Bay Mining and Smelting Co., Limited P.O. Box 1500, Flin Flon, MB, R8A 1N9 |
| Material Uses | Steel Galvanizing, Alloying |
| Synonyms | SHG |

| Section II. Hazardous Ingredients | | | |
|--|-----------|----------------------------------|---------------------------|
| Name | CAS # | % | TLV (mg/m ³) |
| 1) Zinc Metal | 7440-66-6 | 99.95-99.99 | Not Available For Mixture |
| 2) Lead Metal | 7439-92-1 | 0.001-0.003 | 2 |
| 3) Iron Metal | 7439-89-6 | 0-0.003 | 0.05 |
| 4) Copper Metal | 7440-50-8 | 0-0.002 | 1 |
| 5) Cadmium Metal | 7440-43-9 | 0-0.003 | 1 |
| 6) Aluminum Metal | 7429-90-5 | 0-0.002 | 0.01 |
| LD₅₀ (Species/route) | | LC₅₀ (Species) | |
| Not Available For Mixture | | Not Available For Mixture | |

| Section III. Physical Data | | | |
|--|-------------------------------------|-------------------------------|---------------------|
| Physical state and appearance / Odour | Solid Odourless blue-white metal | Specific Gravity | 7.13 |
| pH | Not Applicable | Vapour Density | Not Applicable |
| Odour Threshold | None | Vapour Pressure | 1 mm Hg @ 487 °C |
| Percent Volatile | Unknown | Water/oil dist. Coeff. | Not Available |
| Freezing Point °C | Not Applicable | Evaporation rate | Not Applicable |
| Boiling Point °C | 907 | Solubility | Unknown |

| Section IV. Fire and Explosion Data | |
|--|--|
| Flash Point | Not Applicable |
| Flammable limits | Bulk metal is not flammable, however dust or powder form may be flammable or explosive when mixed with air. |
| Auto-ignition temperature | Not Applicable |
| Sensitive to Mechanical impact | None |
| Sensitive to Static Discharge | None |
| Fire extinguishing procedures | Do not use water on molten material. Use dry chemical suitable for metal fires. |
| LEL/UEL | Not Applicable/Not Applicable |
| Special Procedures | Use caution when immersing solid zinc into a molten zinc bath. Moisture/condensation can cause molten zinc to bubble, splash, or explode. Fire fighters should be equipped with NIOSH self contained breathing apparatus |

| Section V. Reactivity Data | |
|-----------------------------------|-------------------------------|
| Stability | Stable |
| Hazardous decomp. Products | None |
| Incompatibility | Acids, Alkalies, and Halogens |
| Reaction Products | Hydrogen gas |

| Section VI. Toxicological Properties | | | |
|---|--|-----------------------|---------|
| Routes of Entry | Eye, Inhalation, Ingestion | | |
| Effects of Acute Exposure | Eye contact with fume or dust may cause local eye irritation. Inhalation of fume may cause zinc fume fever resulting in flu-like symptoms. | | |
| Effects of Chronic Overexposure | May cause gastrointestinal disturbances. | | |
| Mutagenicity | Unknown | Teratogenicity | Unknown |
| Carcinogenicity | See Additional info | Sensitisation | Unknown |

| Section VI. Toxicological Properties | | | |
|--------------------------------------|------------|------------------------------|------|
| Synergistic Material | None Known | Reproductive Toxicity | Lead |
| Irritancy | Slight | | |

| Section VII. Preventive Measures | |
|--|--|
| Protective Clothing in case of spill and leak | Wear gloves and clothing to protect against physical hazard or hot metal splash. Goggles or face-shield with molten metal. If Ventilation is inadequate, a NIOSH approved respirator. |
| Spill and leak | Contain and put in leak proof containers. Shovel rather than sweep to avoid dusting conditions. |
| Waste disposal | Check with federal, Provincial, and Local government regulations |
| Storage | Store closed containers in a well ventilated area. Protect from physical damage. |
| Engineering Controls | Local exhaust ventilation may be needed to control fume/dust blow the recommended exposure limit. |
| Handling Procedures | Exposure to this material can be controlled in many ways. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Use this general information to help develop specific control measures. Avoid contact with skin, eyes or clothing. Avoid breathing dust and/or vapour/mist. |

| Section VIII. First Aid measures | |
|----------------------------------|--|
| Eye Contact | Treat as foreign body. Immediately flush with water. Seek medical attention |
| Skin Contact | Wash with soap and water |
| Inhalation | Remove to fresh air. Apply artificial respiration if victim not breathing and seek medical attention |
| Ingestion | Rare in industry. Seek medical attention |

| Section IX. Preparation Information | |
|--|---|
| Prepared by Industrial Hygiene | Validated: 2015-03-12 |
| Telephone # (204) 687-2691 | |
| Additional Information | LEAD: IARC reports tat the "evidence for carcinogenicity to humans" is "inadequate". CADMIUM: IARC reports the "evidence for carcinogenicity to humans" is "limited". Practice good hygiene. If clothes are contaminated, remove and launder before using them again. |
| Sources Used | Canadian Centre for Occupational Health and Safety ACGIH, , <u>Threshold Limit Values 2014</u> Merck & Co., Inc. <u>The Merck Index</u> , 11 th ed. Ragway N.J. Merck & Co., Inc. 1989 Sax, Irving N. <u>Dangerous Properties of Industrial Materials</u> , 11 th ed. Toronto, ON. Litton Educational Publishing, Inc., 2004 |
| While the company believes the data set forth herein are accurate as of the date hereof, the company makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation and verification. | |