

## **MSDS FOR ZINC METAL**

### **SECTION I - GENERAL INFORMATION**

NAME: ZINC

**MANUFACTURER:**

Numinor Chemical Industries Ltd.

P.O Box 92

Maalot, Israel 24952

Tel: +972 4 9978220

Fax: +972 4 9976062

email: [zinc@numinor.com](mailto:zinc@numinor.com)

Website: [www.numinor.com](http://www.numinor.com)

Emergency Telephone Number: Mr. Alan Kantor, Tel:+ 972-4-9978220,+ 972-54-7606673

TRADE NAME AND SYNONYMS: Zinc Metal, Electrolytic Zinc, SHG, HG,GOB, Hard Zinc, Top or Bottom Zinc

CHEMICAL FAMILY: Nonferrous Heavy Metal

CAS NO.: 7440-66-6

FORMULA: Zn

UN NO.: No applicable information found.

REVISION DATE: 16/7/10

### **SECTION II – INGREDIENTS**

MATERIAL CAS NO. %

ZINC 7440-66-6 99.9

### **SECTION III PHYSICAL DATA**

BOILING POINT (760 MM HG): 1665° F MELTING POINT: 788° F

SPECIFIC GRAVITY: 7.12 EVAPORATION RATE (=1): N/A

VAPOR DENSITY (air = 1): N/A SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE BY VOLUME (%): N/A VAPOR PRESSURE AT 909° F: 0.13kPa

APPEARANCE AND ODOR: Silver-white, or Bluish-white metal



MSDS FOR ZINC METAL

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Zinc does not introduce a serious fire hazard in sheets, castings, or other massive forms because of the difficulty of ignition, although once ignited (above 1665 °F), large pieces burn vigorously.

FLASH POINT (METHOD USED): N/A NFPA FIRE RATING

FLAMMABLE LIMITS: LEL: N/A HEALTH 0

UEL: N/A FLAMMABILITY 0

REACTIVITY 0

EXTINGUISHING MEDIA: Smother and cool with a suitable dry extinguishing agent (class D fires) such as dry powder (Ansul Met-L-X), zinc oxide or dry sand. Water may be used; however wherever it is necessary to cool exposures, extreme caution should be taken to prevent contact with molten zinc or burning zinc products.

SPECIAL FIRE FIGHTING PROCEDURES: Use NIOSH/MSHA approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heating of metal beyond boiling point results in evolution of zinc vapors, which immediately reacts with air to form zinc oxide fume. Slabs must be completely dry before charging into molten metal to prevent a steam explosion.

**SECTION V - HEALTH HAZARD DATA**

MATERIAL FORM OSHA-PEL ACGIH-TLV

TWA TWA STEL

mg/m<sup>3</sup> mg/m<sup>3</sup> mg/m<sup>3</sup>

ZINC Oxide Fume 5 2 10

ROUTES OF ENTRY

PRIMARY: Inhalation, if material has been heated above the boiling point, driving off zinc fume.

SECONDARY: Ingestion of dusts.

EFFECTS OF SHORT TERM OVEREXPOSURE:

ZINC: Inhalation of high levels of zinc vapor (zinc oxide fumes) may result in tightness of chest, metallic taste, cough, dizziness, fever, chills, headache, nausea, and dry throat. Overexposure may produce symptoms known as metal fume fever or "zinc shakes"; an acute, self-limiting condition without recognized complications. Symptoms of metal fume fever include: chills, fever, muscular pain, nausea and vomiting.

## MSDS FOR ZINC METAL

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Inhalation of dust may be an irritant to pre-existing respiratory conditions.

**EMERGENCY AND FIRST AID PROCEDURES:** Symptoms resulting from inhalation overexposure usually disappear within 24 hours. Symptomatic treatment, such as bed rest and possibly aspirin is recommended to provide relief from fever and chills. In all cases, consult physician for medical attention.

**EFFECTS OF LONG TERM OVEREXPOSURE:**

**ZINC:** Chronic exposure to zinc dust may cause respiratory tract irritation with nasopharyngitis and laryngitis.

**CARCINOGENIC ASSESSMENT:**

NTP? No IARC MONOGRAPH? No OSHA? No

### SECTION VI - REACTIVITY DATA

**STABILITY:** ( ) Unstable  
(X) Stable

**CONDITIONS TO AVOID:** None

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with acids and alkalis.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Zinc boils off as vapor at elevated temperatures.

**HAZARDOUS POLYMERIZATION:** ( ) May occur  
(X) Will not occur

### SECTION VII - SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Material should be contained for recycling.

**WASTE DISPOSAL METHOD:** Material may be recycled or disposed of in accordance with Federal, State, and Local Environmental Regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (SPECIFY TYPE):** Use NIOSH/MSHA approved type respirator for protection against dust and metal fume.

**VENTILATION:** Local exhaust or other ventilation that will reduce dust concentrations to less than permissible exposure limits.

**PROTECTIVE GLOVES:** Recommended to prevent skin irritation in hypersensitive individuals.



**EYE PROTECTION:** Use safety eyewear for protection against airborne particulate matter.

**OTHER PROTECTIVE EQUIPMENT:** To prevent burns from contact with molten metal, appropriate protective garments should be worn. Such garments may include aprons, face shields, leggings, etc., depending on conditions of use.

## **SECTION IX - SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Store in a dry location, separate from acids and alkalis. Keep metal dry so it does not contain any moisture when ready for use.

**OTHER PRECAUTIONS:** Damp slabs placed in molten metal may result in a steam explosion. Always practice good personal hygiene when working in areas where this material exists.

## **SECTION 10 - ACCIDENTAL RELEASE MEASURES & SPILL LEAK PROCEDURES**

Personal precautions: Wear suitable gloves and eye/face protection. Avoid dust creation.  
Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Re-use or recycle waste.

## **SECTION 11 - HANDLING AND STORAGE**

Handling & storing: Good housekeeping. Avoid making dust.  
Packing Materials: All materials suitable.

## **SECTION 12 - ECOLOGICAL INFORMATION**

Persistence and degradability: Not applicable.  
Bioaccumulative potential: Not applicable.  
WGK (Germany): 1  
Ecotoxicity: Not applicable  
Mobility: Not applicable.

## **SECTION 13 - DISPOSAL CONSIDERATIONS**

Disposal: Comply with local regulations for disposal.  
Contaminated packaging: Keep waste packaging separate.  
Waste should be disposed of in a permitted chemical waste facility.



## **SECTION 14 - TRANSPORT INFORMATION**

Hazard Labels: Not restricted.

H.S. Code: 790112  
UN - No: Not Listed. NOT RESTRICTED  
ADR/RID/ADNR/IMO-IMDG: Not restricted.  
Shipping Name: HARD ZINC  
Packaging Group: Not Applicable  
IMDG-Marine Pollution No  
EMS No. Not available.  
MFAG Table Not available.

## **SECTION 15 - REGULATORY INFORMATION**

Symbol:

R Phrase(s): NONE.  
S Phrase(s): NONE

## **SECTION 16 - OTHER INFORMATION**

Date of Issue: June 2008  
Last update: June 2014  
MSDS prepared by: AVK

Disclaimer: As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of the material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without any warranty, express or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.