

Safety Data Sheet

Zinc, Metal

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Zinc, Metal
Recommended Use: Science education applications
Synonyms: Spelter
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Self-heating: may catch fire. In contact with water releases flammable gases. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

GHS Classification:

Self-heating substance or mixture Category 1, Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Substance or mixture which in contact with water emits flammable gas Category 2

Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u> | <u>CAS #</u> | <u>%</u> |
|----------------------|--------------|----------|
| Zinc, Metal | 7440-66-6 | 100 |

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: After contact with skin, wash immediately with plenty of water.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Dry lithium chloride, graphite powder, Pyrene G-1, dry sodium chloride, dry (anhydrous) calcium oxide.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products: Zinc Oxides

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS

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Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Collect spillage.

Section 7 Handling and Storage

Handling: Keep away from any possible contact with water, because of violent reaction and possible flash fire. Handle under inert gas. Protect from moisture. Keep cool. Protect from sunlight. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use only in well-ventilated areas. Do not breathe dust.

Storage: Keep cool. Protect from sunlight. Store in a dry place. Store in a closed container. Maintain air gap between stacks/pallets. Store bulk masses greater than ... kg/... lbs at temperatures not exceeding ...°C/...°F. Store away from other materials. Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Green - general chemical storage

Section 8 Protection Information

| <u>Chemical Name</u> | <u>(TWA)</u> | <u>ACGIH</u> | <u>(STEL)</u> | <u>(TWA)</u> | <u>OSHA PEL</u> | <u>(STEL)</u> |
|----------------------|--------------|--------------|---------------|--------------|-----------------|---------------|
| Zinc | N/A | | N/A | N/A | | N/A |

Control Parameters

Engineering Measures:

No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

Respiratory Protection:

No respiratory protection required under normal conditions of use.

Respirator Type(s):

None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection. Wear chemical splash goggles when handling this product. Have an eye wash station available.

Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves:

No information available

Section 9 Physical Data

Formula: Zn

Molecular Weight: 65.38

Appearance: Grey Metallic Solid
Metals (powdered)

Odor: None

Odor Threshold: No data available

pH: No data available

Melting Point: 419 C

Boiling Point: 907 C

Flash Point: No data available

Flammable Limits in Air: No data available

Vapor Pressure: 1.33 hPa at 487 °C

Evaporation Rate (BuAc=1): No data available

Vapor Density (Air=1): No data available

Specific Gravity: 7.12

Solubility in Water: Practically Insoluble

Log Pow (calculated): No data available

Autoignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

Percent Volatile by Volume: No data available

Section 10 Reactivity Data

Reactivity:

Not generally reactive under normal conditions.

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

No data available.

Incompatible Materials:

Strong oxidizing agents, Strong acids, hydrogen chloride

Hazardous Decomposition Products:

Zinc Oxides

Hazardous Polymerization:

Will not occur

Section 11 Toxicity Data

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Routes of Entry: Inhalation and ingestion.
Symptoms (Acute): Muscle Weakness, Vomiting, Nausea, Anemia
Delayed Effects: No data available

Acute Toxicity:

| Chemical Name | CAS Number | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|------------|----------------|----------------|-----------------|
| Zinc | 7440-66-6 | Not determined | Not determined | Not determined |

Carcinogenicity:

| Chemical Name | CAS Number | IARC | NTP | OSHA |
|---------------|------------|------------|------------|------------|
| Zinc | 7440-66-6 | Not listed | Not listed | Not listed |

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: No data available
Chronic: No data available

Section 12

Ecological Data

Overview: Severe ecological hazard. This product may be toxic to plants and/or wildlife.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

| Chemical Name | CAS Number | Eco Toxicity |
|---------------|------------|--|
| Zinc, Metal | 7440-66-6 | 96 HR LC50 PIMEPHALES PROMELAS 2.66 MG/L [STATIC] 96 HR LC50 CYPRINUS CARPIO 30 MG/L 96 HR LC50 CYPRINUS CARPIO 7.8 MG/L [STATIC] 96 HR LC50 LEPOMIS MACROCHIRUS 3.5 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 0.41 MG/L [STATIC] |

Section 13

Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14

Transport Information

Ground - DOT Proper Shipping Name: Not regulated for transport by US DOT.
Air - IATA Proper Shipping Name: Not regulated for air transport by IATA.

Section 15

Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

| Chemical Name | CAS Number | § 313 Name | § 304 RQ | CERCLA RQ | § 302 TPQ | CAA 112(2) TQ |
|---------------|------------|------------|----------|-----------|-----------|---------------|
|---------------|------------|------------|----------|-----------|-----------|---------------|

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Zinc

No

454 kg final
RQ (no
reporting of
releases of
this hazardous
substance is
required if the
diameter of the
pieces of the
solid metal
released is
>100 µm);
1000 lb final
RQ (no
reporting of
releases of
this hazardous
substance is
required if the
diameter of the
pieces of the
solid metal
released is
>100 µm)

No

No

Section 16

Additional Information

Revised: 04/03/2014

Replaces: 02/07/2014

Printed: 06-12-2014

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

| | | | |
|--------|---|------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists | NTP | National Toxicology Program |
| CAS | Chemical Abstract Service Number | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL | Permissible Exposure Limit |
| DOT | U.S. Department of Transportation | ppm | Parts per million |
| IARC | International Agency for Research on Cancer | RCRA | Resource Conservation and Recovery Act |
| N/A | Not Available | SARA | Superfund Amendments and Reauthorization Act |
| | | TLV | Threshold Limit Value |
| | | TSCA | Toxic Substances Control Act |
| | | IDLH | Immediately dangerous to life and health |