

**SECTION 1: CHEMICAL AND MANUFACTURER IDENTIFICATION**

Product Name: COPPER LEAF

Product Code: CB0224

**Crescent Bronze Powder Co.**

3321 County Road A

PO Box 1007

Oshkosh, WI 54903-1007

(920) 230-3270

E-mail: sds@crescentbronze.us

**24 Hour Emergency:** INFOTRAC: 1-800-535-5053**Outside U.S. and Canada:** Infotrac: 352-323-3500

INFOTRAC Customer ID: 72826

NOTE: INFOTRAC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

Product Use:

Not recommended for:

Because many of the conditions are within the user's knowledge and control, it is essential that the user evaluate and determine whether the product is suitable and appropriate for a particular use and intended application, and complies with all local applicable laws, regulations, standards, and guidance.

**SECTION 2: HAZARD(S) IDENTIFICATION****GHS Classification Scale**

1=Severe Hazard; 4=Slight Hazard

**GHS Ratings:**

Flammable solid

1

Metal Powders: burning time = 5 minutes, others: wetted zone does not stop fire &amp; burning time &lt; 45 seconds or burning &gt; 2.2 mm/second

Aquatic toxicity

A1

Acute toxicity &lt;= 1.00 mg/l

**GHS Hazards**

H228

Flammable solid

H400

Very toxic to aquatic life

**GHS Precautions**

P210

Keep away from heat, sparks, open flames and hot surfaces. No smoking!

P240

Ground / bond container and receiving equipment

P241

Use explosion-proof electrical, ventilating, lighting equipment

P273

Avoid release to the environment

P280

Wear protective gloves, protective clothing, eye protection, face protection

P391

Collect spillage

P370+P378

In case of fire: Use dry sand / special powder suitable for metal fires for extinction

P501

Dispose of contents / container to an approved waste disposal facility

Danger



**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Copper 7440-50-8 90 to 100% Vapor Pressure: 0 mmHg	0.1 mg/m <sup>3</sup> TWA (fume); 1 mg/m <sup>3</sup> TWA (dust and mist)	0.2 mg/m <sup>3</sup> TWA (fume)	NIOSH: 1 mg/m <sup>3</sup> TWA (dust and mist); 0.1 mg/m <sup>3</sup> TWA (fume)
Zinc 7440-66-6 1 to 5% Vapor Pressure: .998 mmHg			

**SECTION 4: FIRST AID MEASURES**

**Inhalation:** Move affected person to fresh air. If breathing has stopped, administer CPR. If the person vomits, clean the airway and turn their head to the side to prevent choking. If the person is unconscious but breathing, place them stably on their left side in the recovery position. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Eyes:** Flush eyes gently with clean water for at least 15 minutes. If irritation persists, seek immediate medical attention.

**Skin:** Remove any contaminated clothing using appropriate gloves. Rinse skin thoroughly for 15 minutes in a shower or with a hose. Seek immediate medical attention.

**Ingestion:** Rinse mouth with water to remove any residual chemical. If the person vomits, clean their airway and turn their head to the side to prevent choking. DO NOT induce vomiting following accidental ingestion due to the risk of aspiration of material into the lungs. DO NOT give them anything to drink unless directed to do so by a physician. If the person is unconscious but breathing, place them stably on their left side in recovery position. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Additional Notes to Physician** - Treat symptomatically. No specific antidote available.

**SECTION 5: FIREFIGHTING MEASURES**

LEL: N/A

UEL: N/A

**Suitable Extinguishing Media:**

Dry Sand  
Special Powder suitable for extinguishing metal fires

**Unsuitable Extinguishing Media:**

Water  
Carbon Dioxide (CO<sub>2</sub>)  
Foam

**Specific Hazards During Firefighting:** Using water on metallic fires may generate flammable (hydrogen) gas.

**Byproducts of Combustion:** Fires involving this product may release oxides of carbon and nitrogen, reactive hydrocarbons, metal oxides and irritating vapors.

**Unusual Fire and Explosion Hazards:** Any closed container may rupture when exposed to extreme heat. A water spray may be used to cool sealed containers.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Spill / Leak Clean-Up Procedures:

Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spills, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers. If a large spill occurs notify the appropriate authorities.

In case of road spill or accident contact CHEMTREC (800-424-9300).

**CAUTION:** If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will also be regulated.

Do not empty into drains. All disposal must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14.

## SECTION 7: HANDLING AND STORAGE

### Handling Precautions:

Open containers carefully and in a well ventilated area, and use appropriate respiratory protection. Wash hands thoroughly after handling. Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers contain product residue which may exhibit hazardous properties therefore, do not pressurize, cut, glaze, weld or use for any other purpose. Return drums to reclamation center for proper cleaning and reuse.

Prevent the formation of dust. Deposits of dust that cannot be avoided must be removed regularly.

### Storage Requirements:

Store in a cool, dry, well ventilated area. Keep containers tightly closed and store away from heat, sparks, open flame or oxidizing materials. Protect from humidity and water.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Copper 7440-50-8	0.1 mg/m <sup>3</sup> TWA (fume); 1 mg/m <sup>3</sup> TWA (dust and mist)	0.2 mg/m <sup>3</sup> TWA (fume)	NIOSH: 1 mg/m <sup>3</sup> TWA (dust and mist); 0.1 mg/m <sup>3</sup> TWA (fume)

Zinc 7440-66-6			
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**Engineering Controls:** Avoid creating dust or mist. Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid over exposure. Use explosion-proof ventilation equipment. Do not use in closed or confined spaces. Keep all levels below exposure limits. Perform regular monitoring to ensure exposure limits are not exceeded.

**Personal Protective Equipment (PPE):**

**Respiratory Protection** - Do not breathe vapors. When concentrations exceed the established limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA) until vapors are exhausted. Observe OSHA standard 29 CFR 1910.134 and ANSI Z88.2 requirements whenever workplace conditions require a respirators use.

**Hand Protection** - Wear appropriate protective gloves and clothing to prevent skin exposure. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product.

**Eye Protection** - Use safety eyewear with splash guards or side shields. Use additional eye protection such as chemical safety goggles when the possibility for eye contact from splashing, spraying liquid, or airborne material exists.

**Skin Protection** - Avoid contact with this product. Wear appropriate protective gloves and clothing to prevent skin exposure. Use proper glove and clothing removal techniques to avoid skin contact with this product. When handling large quantities, eye wash stations and deluge showers should be available.

**Hygiene Measures:**

**General** - When using do not eat or drink. Wash hands with soap and water before breaks and at the end of each workday.

**Contaminated Equipment** - Avoid contact with contaminated clothing and protective gear/equipment. Wash before reuse.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

This mixture typically exhibits the following properties under normal circumstances:

<p><b>Appearance</b> Copper Metallic Powder</p> <p><b>Physical State</b> Powder</p> <p><b>Lbs. VOC/Gallon Less Water</b> 0.00</p> <p><b>g VOC/L Less Water</b> 0.00</p>	<p><b>Odor</b> Slight Metallic</p> <p><b>Specific Gravity (SG)</b> 8.110</p> <p><b>Flash point:</b> N/A</p> <p><b>Boiling range:</b> N/A</p>
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**SECTION 10: STABILITY AND REACTIVITY**

**Product Stability (under normal conditions):** STABLE

**Incompatible Materials:** Strong acids, strong bases, oxidizing agents

**Hazardous Decomposition Products:** None  
Hazardous polymerization will not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Mixture Toxicity

Inhalation Toxicity: 5.41mg/L

### Component Toxicity

#### Principle Routes of Exposure:

Inhalation      Skin Contact      Eye Contact      Ingestion

#### May cause damage to the following organs:

Eyes      Kidneys      Liver      Skin      Respiratory System

### Effects of Overexposure

**Carcinogenicity:** The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing) or ACGIH (optional listing):

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
None			None

## SECTION 12: ECOLOGICAL INFORMATION

**Bioaccumulative Potential:** No data available

**Mobility in Soil:** No data available

**Persistence and Degradability:** No data available

### Component Ecotoxicity

Copper

96 Hr LC50 Pimephales promelas: 0.0068 - 0.0156 mg/L  
96 Hr LC50 Pimephales promelas: <0.3 mg/L [static]  
96 Hr LC50 Pimephales promelas: 0.2 mg/L [flow-through]  
96 Hr LC50 Oncorhynchus mykiss: 0.052 mg/L [flow-through]  
96 Hr LC50 Lepomis macrochirus: 1.25 mg/L [static]  
96 Hr LC50 Cyprinus carpio: 0.3 mg/L [semi-static]  
96 Hr LC50 Cyprinus carpio: 0.8 mg/L [static]  
96 Hr LC50 Poecilia reticulata: 0.112 mg/L [flow-through]  
48 Hr EC50 Daphnia magna: 0.03 mg/L [Static]  
72 Hr EC50 Pseudokirchneriella subcapitata: 0.0426 - 0.0535 mg/L [static]  
96 Hr EC50 Pseudokirchneriella subcapitata: 0.031 - 0.054 mg/L [static]

Zinc

96 Hr LC50 Pimephales promelas: 2.16 - 3.05 mg/L [flow-through]  
96 Hr LC50 Pimephales promelas: 0.211 - 0.269 mg/L [semi-static]  
96 Hr LC50 Pimephales promelas: 2.66 mg/L [static]  
96 Hr LC50 Cyprinus carpio: 30 mg/L  
96 Hr LC50 Cyprinus carpio: 0.45 mg/L [semi-static]  
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: 0.24 mg/L [flow-through]  
96 Hr LC50 Oncorhynchus mykiss: 0.59 mg/L [semi-static]  
96 Hr LC50 Oncorhynchus mykiss: 0.41 mg/L [static]  
48 Hr EC50 Daphnia magna: 0.139 - 0.908 mg/L [Static]  
96 Hr EC50 Pseudokirchneriella subcapitata: 0.11 - 0.271 mg/L [static]  
72 Hr EC50 Pseudokirchneriella subcapitata: 0.09 - 0.125 mg/L [static]

## SECTION 13: DISPOSAL CONSIDERATIONS

Do not discharge product into sewer system. Dispose of in a licensed facility. Waste management should be in full compliance with federal, state, and local laws.

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Chemical additions, processing, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate.

## SECTION 14: TRANSPORT INFORMATION

This material is classified for transport as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
U.S. DOT	Metal Powder, Flammable, N.O.S. (Copper/Zinc Powder)	3089	II	4.1

## SECTION 15: REGULATORY INFORMATION

Additional regulatory listings where applicable

**State of California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)** WARNING! This product contains the following substance(s) which are listed by the State of California as carcinogenic, or a reproductive toxin:

- None

**Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)** This product contains a chemical or chemicals which are subject to the reporting requirements of the Act, and Title 40, of the Code of Federal Regulations, part 372:

7440-66-6 Zinc  
7440-50-8 Copper Reportable Quantity

**Canadian DSL** All substances in this product except those listed below are listed or exempt from reporting:

- None

**Clean Air Act, Section 112, Hazardous Air Pollutants (HAPs) (see 40 CFR 61)** This product contains the following substance(s) which are listed as hazardous air pollutants (HAPs) per the Clean Air Act:

- None

**Massachusetts Right To Know** This product contains the following toxic or hazardous substance(s) which appear on the Massachusetts Substance List:

7440-66-6 Zinc  
7440-50-8 Copper

**New Jersey Worker and Community Right to Know Hazardous Substance List** The following substance(s) appear on the New Jersey Right to Know Hazardous Substance List:

7440-66-6 Zinc  
7440-50-8 Copper

**Commonwealth of Pennsylvania Worker and Community Right To Know Act** This product contains the following substance(s) which appear on the Pennsylvania Hazardous Substance List:

7440-66-6 Zinc  
7440-50-8 Copper

**TSCA Substance Control Act (TSCA)** All substances except those listed below appear in the Toxic Substances Control Act, Chemical Substance Inventory:

- None

<b>SECTION 16: OTHER INFORMATION</b>
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**Disclaimer:** The Volatile Organic Compound (VOC) content reported herein, if any, is based on a material VOC calculation. Several methods are used for the calculation of VOC content, and the standards and requirements regarding VOC content vary by location or jurisdiction.

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Date Prepared: 10/7/2015

Reviewer Revision

**Revision Notes:**