

TECHNIC, INC.

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product Name: COPPER FLAKE 170

Product Code: 23-170

Recommended use: Conductive filler; for industrial use only.

Supplier:

Technic Inc.

1 Spectacle Street

Cranston, RI 02910 USA

Telephone no: 401-781-6100

Current SDS preparation date: May 18, 2017

Original SDS preparation date: April 4, 2016

Emergency no: ChemTrec 800-424-9300, Outside the USA and Canada 703-527-3887

SECTION 2. HAZARD IDENTIFICATION

Classification:

Eye Damage/Irritation, Category 2A

Label elements and precautionary statements:

Signal word: Warning

Pictogram(s):



Hazards not otherwise classified: None

Hazard statement(s):

Causes serious eye irritation

Precautionary statement(s):

Wash hands thoroughly after handling.

Wear protective gloves, clothing and eye and face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical name	CAS Number	EINECS Number	Concentration
Copper (metallic)	7440-50-8	231-159-6	100%

SECTION 4. FIRST AID MEASURES

Inhalation:

Remove patient to fresh air. Support breathing if required. Obtain medical treatment for dizziness, unconsciousness or irritation or difficulty in breathing.

Skin contact:

Remove contaminated clothing and wash affected area thoroughly with soap and water. Launder clothing before rewearing. Seek medical attention for prolonged skin irritation.

Eye contact:

Flush with water, including under lids, for fifteen minutes. Obtain immediate medical attention.

Ingestion:

If patient is conscious, rinse mouth and drink at least two large glasses of water. DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain immediate medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use media appropriate for surrounding fire such as foam, extinguishing powder, carbon dioxide or water spray. In case of fire, cool endangered containers with water spray.

Unsuitable extinguishing media: High pressure water jet.

Specific hazards in case of fire: May react with incompatible materials (see Section 10) under fire conditions.

Special protective equipment and precaution for fire fighters: For fires in enclosed areas, wear self-contained breathing apparatus and full protective gear. Do not inhale combustion gases.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear appropriate skin, eye and respiratory protection. Do not eat, drink or smoke while cleaning up. Ensure adequate ventilation.

Methods and materials for containment and cleaning up:

Wear appropriate personal protective gear including eye, skin and respiratory protection. Contain spilled material and collect without raising dust by a suitable method such as vacuuming or wet sweeping. Do not allow this material or its rinsings to enter storm or sanitary sewers or other waterways. (See also Section 13).

Environmental precautions:

Prevent spills and rinsings from entering storm or sanitary sewers or other waterways and contact with soil.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with eyes. Avoid prolonged repeated skin contact and breathing mists or vapors. Use in well-ventilated area. Do not empty waste into sanitary drains.

Conditions for safe storage, including incompatibilities:

Store in a cool, dry area. Use with adequate ventilation. Keep container tightly closed when not in use. Store only in the original container.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

<u>Ingredient</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>Other Limits</u>
Copper (metallic)	1 mg/m ³ TWA	1 mg/m ³	1 mg/m ³ NIOSH REL

Appropriate engineering controls:

Use in well-ventilated area with local exhaust.

Respiratory protection:

Wear appropriate, approved respiratory protection when ventilation is inadequate to meet exposure limits.

Eye protection:

Chemical splash goggles or safety glasses with side shields must be worn.

Skin protection:

Wear rubber or neoprene gloves. Wear rubber apron and long sleeves to prevent skin contact. Wash hands thoroughly with soap and water after handling and before eating or smoking.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid, metal powder
Color: Red-brown
Odor: None
Odor threshold: Not available
pH: Not applicable
Melting/freezing point: 1083 °C (1982 °F)
Initial boiling point: Not determined
Flash point: Not applicable
Evaporation rate: Not available
Flammability (solid, gas): Not applicable
Upper/lower explosion limits: Non-explosive
Vapor pressure: Not determined
Vapor density: Not determined
Relative density (H₂O = 1) @25 °C: 8.94
Solubility: Insoluble in water; soluble in mineral acids
Partition coefficient octanol/water: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: Not applicable
Viscosity: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable, non-reactive when stored and used according to recommendations.
Chemical stability: No decomposition if used according to specifications.
Possibility of hazardous reactions: None reported.
Conditions to avoid: None reported.
Incompatible materials: Mineral acids and strong oxidizers.
Hazardous decomposition products: None reported.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Exposure and Symptoms

- Inhalation:** Inhalation of powder can cause mild, non-specific irritation of nasal and respiratory passages.
- Ingestion:** Non-specific symptoms may occur due to presence of particulate material.
- Skin Contact:** No reported effects.
- Eye Contact:** Metallic particles will cause mechanical irritation to eye tissue.

Acute and Chronic Effects from Short- and Long-term Exposure:

See Routes of Exposure and Symptoms above.

Acute Oral Toxicity: TDLo: 152 mg/kg (rat, copper)

Acute Dermal Toxicity: None reported; copper is non-toxic.

Acute Inhalation Toxicity: None reported; copper is non-toxic.

Acute Eye Irritation: Metal particles cause mechanical irritation to eye tissue.

Dermal Irritation: None reported; copper is non-irritating.

Carcinogen Listings:

IARC: No

NTP: No

OSHA: No

Reproductive Effects: No applicable information available.

Target Organ Effects: No applicable information available.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: There are no data reported for this material.

Persistence and degradability: There are no data reported for this material.

Bio-accumulative potential: There are no data reported for this material.

Mobility in soil: There are no data reported for this material.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal:

Disposal of this material is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

SECTION 14. TRANSPORT INFORMATION

Classification for shipment by road or rail, sea (IMDG) and air (IATA/ICAO):

UN proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S.
(Copper Metal Powder)
UN number: UN3077
Transport hazard class: 9
Packing group: III

Marine Pollutant: Yes (Copper Metal Powder)

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SECTION 15. REGULATORY INFORMATION

Inventory Status:

All components are on TSCA, EINECS/ELINCS, AICS, and DSL.

U.S. Regulations:

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:

SARA (311/312) HAZARD CATEGORIES:

None Immediate Delayed Fire Reactive Pressure generating

SARA 313: This product contains the following SARA 313 Toxic Release Chemicals.

Chemical Name	CAS Number	Concentration
None		

The following product components are cited on the lists below:

Chemical Name	CAS Number	List Citations
None		California Proposition 65 List

SECTION 16. OTHER INFORMATION

VOC (Volatile Organic Compounds): None

HMIS Ratings:

Health: 1 **Flammability:** 0 **Reactivity:** 0 **Personal Protection:** C

Prepared by: Allan H. Reed

SDS Preparation date: May 18, 2017

Supersedes previous version: April 4, 2016.

This SDS contains revisions in the following section(s): 2, 14, 15.

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End of Safety Data Sheet