****TECHNIC, INC.**SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product Name: TECHNIC CU 2800 BRIGHTENER

Product Code: 405105

Recommended use: Electroplating bath component; for industrial use only.

Supplier:

Technic Inc. Current SDS preparation date: September 5, 2018
1 Spectacle Street Original SDS preparation date: November 7, 2013

Cranston, RI 02910 USA

Telephone no: 401-781-6100

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

SECTION 2. HAZARD IDENTIFICATION

Classification:

Skin Corrosion/Irritation, Category 1B Eye Damage/Irritation, Category 1 Acute Aquatic Toxicity, Category 1 Chronic Aquatic Toxicity, Category 1

Label elements and precautionary statements:

Signal word: Danger

Pictogram(s):



Hazards not otherwise classified: None

Hazard statement(s):

Causes severe skin burns and eye damage Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

Do not breathe dust, fume, gas, mist, vapors or spray.

Wash hands thoroughly after handling.

Wear protective gloves, clothing and eye and face protection.

If swallowed: Rinse mouth. DO NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Wash contaminated clothing before reuse.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Avoid release to the environment.

Collect spillage.

Dispose of contents and container in accordance with local, state and federal regulations.

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SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical nameCAS NumberEINECS NumberConcentrationSulfuric acid7664-93-9231-639-50.8%Copper sulfate pentahydrate7758-99-8*231-847-60.3%

*Under the Toxic Substance Control Act (TSCA), hydrates are considered as mixtures of their anhydrous form and water. Accordingly, the CAS Number 7758-98-7 for the anhydrous form of this material is used for TSCA purposes.

The chemical identity and concentration of one or more ingredients of this product are withheld as a trade secret under the provisions of paragraph (i) of 29 CFR 1910.1200. This information will be made available to health professionals and others in accordance with the applicable provisions of this paragraph.

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.

Eve 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: None reported.

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.

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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 by absorption or other suitable method. Flush spill area with water. 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:

Appropriate engineering controls:

Use in well-ventilated area with local exhaust.

Respiratory protection:

Wear appropriate, approved respirator 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.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid Color: Pale blue

Odor: Slightly pungent

Odor threshold: Not available

pH: <2.0

Melting/freezing point: Not determined Initial boiling point: >100 °C (>212 °F)

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 ($H_2O = 1$) @25 °C: 1.00+/-0.05 Solubility: Completely soluble in water at 20 °C

Partition coefficient octanol/water: Not determined

Auto-ignition temperature: Not applicable **Decomposition temperature:** Not available

Viscosity: Similar to water

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 are known.

Conditions to avoid: None reported.

Incompatible materials: Alkaline materials and strong oxidizers.

Hazardous decomposition products: Oxides of sulfur.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Exposure and Symptoms

Inhalation: Irritating to the respiratory tract.

Ingestion: Will cause irritation and burns to mouth, throat and gastrointestinal tract.

Skin Contact: Causes irritation and burns to skin.

Eye Contact: Causes severe burns and eye damage.

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

See Routes of Exposure and Symptoms above.

Acute Oral Toxicity: LD50: 2140 mg/kg (rat, sulfuric acid)

LD50: 300 mg/kg (rat, copper sulfate pentahydrate)

Acute Dermal Toxicity: No applicable information available.

Acute Inhalation Toxicity: LC50: 510 mg/m³, 2 hours (rat, sulfuric acid)

Acute Eye Irritation: 1.38 mg severe (rabbit, sulfuric acid)

Dermal Irritation: No applicable information available.

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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: LC50: 42 mg/l, 96 hours (mosquito fish, sulfuric acid)

EC50: 0.024 mg/l (daphnia magna, copper sulfate)

Persistence and degradability: There are no data reported for this material; however, this product is

harmful to aquatic life.

Bio-accumulative potential: There is no evidence to suggest bioaccumulation will occur.

Mobility in soil: Accidental spillage may lead to penetration in the soil and groundwater. Improper handling and disposal of this material may cause environmental damage.

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 number: UN3264

UN proper shipping name: Corrosive Liquid, Acidic, Inorganic, N.O.S.

(Contains Sulfuric Acid)

Transport hazard class: 8
Packing group: III

Marine Pollutant: Yes (Cupric sulfate)

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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:
NoneX_ImmediateDelayedFireReactivePressure generating
SARA 313: This product contains the following SARA 313 Toxic Release Chemicals. Chemical Name CAS Number Sulfuric acid 7664-93-9 Copper sulfate pentahydrate 7758-99-8 Concentration 0.8% 0.3%
The following product components are cited on the lists below: Chemical Name CAS Number List Citations California Proposition 65 List
SECTION 16. OTHER INFORMATION
VOC (Volatile Organic Compounds): None
HMIS Ratings:
Health: 3 Flammability: 0 Reactivity: 0 Personal Protection: C
Prepared by: Allan H. Reed
SDS Preparation date: September 5, 2018 Supersedes previous version: November 7, 2013
This SDS contains revisions in the following section(s): 14.
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End of Safety Data Sheet