MATERIAL SAFETY DATA SHEET

1. PRODUCT AND DOCUMENT IDENTIFICATION

Product Identity: Cupricyn **Product Code:** CU-CYN, 029-50

Manufactured by: Radix Laboratories, Inc.

1334 International Drive Eau Claire, WI 54701

Emergency Telephone: (800) 424-9300 Information Telephone: (715) 833-0644

Date Prepared: April 24, 2013 Contact: Radix Laboratories Inc. Replaces issue of: N/A Prepared By: Terry Krueger

2. IDENTIFICATION OF SIGNIFICANT CHEMICAL COMPONENTS:

Component	CAS NO.	<u>OSHA PEL</u>	ACGIH TLV	mg/mL
Copper Sulfate • 5H ₂ O	7758-99-8	Not Listed	N/A	N/A
Acidic Base	N/A	N/A	N/A	N/A

3. FIRE/EXPLOSION HAZARDS:

Flash Point (Method Used): N/A Flammable Limits: Not Flammable

Extinguishing Media: Use media appropriate to control surrounding fire.

Special Fire Fighting Procedures: Usual fire fighting equipment including self-contained

breathing apparatus.

Unusual Fire and Explosion Hazards: Copper expected to be in smoke during fire conditions.

4. FIRST-AID MEASURES:

Signs and Symptoms of Exposure: Irritating to eyes. Ingestion may cause nausea/vomiting and intestinal bleeding. Irritating to skin/nasal tract and mucous membranes.

Medical Conditions Generally Aggravated by Exposure: Heavy metal poisoning, sulfate allergy.

Emergency and First Aid Procedures:

SKIN: Remove contaminated clothing, wash with cold water for 15 minutes.

EYES: Flush with cold water for 15 minutes. Seek medical attention to treat potential long term eye problems.

INGESTION: Seek medical attention immediately. If inducing vomiting, drink plenty of milk or water first. For ingestion treatment a chelating agent may be administered by a physician.

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5. PRECAUTIONS FOR SAFE HANDLING AND USE:

Clean up of Released/Spilled Material: Ventilate area of spill, collect material for disposal.

Wear protective equipment during clean up. Do not flush rinse water down drain.

Waste Disposal Method: Anodize copper from waste slurry for recycling (recommended), then dispose of waste at a facility operating in compliance with applicable federal, state and local regulations.

Handling and Storing Precautions: Store at room temperature. Avoid extremes in temperature. Handle to avoid breakage or spillage. Avoid exposure to direct sunlight. **Other Precautions:** Use only in accordance with label instructions. Avoid contact with skin and eyes. Avoid ingestion.

6. EXPOSURE CONTROL MEASURES:

Respiratory Protection: Not normally required. **Ventilation:** Local exhaust should be provided.

Protective Clothing or Equipment: Impervious gloves, goggles, lab coat or similar clothing. **Work/Hygienic Practices:** Avoid contact with eyes, skin, mucous membranes. Avoid ingestion. Wash hands and face before eating, drinking or smoking. Staining of exposed skin may occur.

7. PHYSICAL/CHEMICAL CHARACTERISTICS:

Boiling Point: N/A (Similar to water) **Specific Gravity (H₂0 = 1):** 1.2

Vapor Pressure (mm Hg): N/AMelting Point: N/AVapor Density (Air = 1): N/AEvaporation Rate: N/A

 \mathbf{pH} : 1.0-2.0 (Butyl Acetate = 1)

Solubility in Water: Complete if stored at 59-86F.

Appearance and Odor: Clear blue liquid with soapy odor. Slight haze from gelling additive.

8. REACTIVITY INFORMATION:

Stability: Stable

Conditions to Avoid: Safe use is only accomplished by following label instructions. Any other use is unsafe, harmful and not recommended.

Incompatibility (Materials to Avoid): Bases/Alkalies. Note product pH: exothermic hazard may exist when mixed with alkalies/bases.

Hazardous Decomposition or Byproducts: Emits toxic fumes under fire conditions.

Hazardous Polymerization: Will not occur.

9. TOXICOLOGICAL HAZARD INFORMATION:

Route(s) of Entry: Ingestion, skin, eyes.

Health Hazards (Acute and Chronic): Irritation to skin/eyes may occur on contact. Possible hyper sensitization may occur. Very toxic to aquatic organisms.

Carcinogenicity: None, but is mutagenic.

Toxicity: LD50 (Oral, Rat) 500 mg/kg based on the copper sulfate contribution.