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|---------------------|---|
| Health | 1 |
| Fire | 0 |
| Reactivity | 0 |
| Personal Protection | C |

Material Safety Data Sheet

Cupric Nitrate, 0.1 M MSDS

Section 1: Chemical Product and Company Identification

Product Name: Cupric Nitrate, 0.1 M

Catalog Codes: SLC2203

CAS#: Mixture.

RTECS: Not applicable.

TSCA: TSCA 8(b) inventory: Water

CI#: Not available.

Synonym:

Chemical Name: Not applicable.

Chemical Formula: Not applicable.

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

| Name | CAS # | % by Weight |
|---------------------------|-------------|-------------|
| Cupric nitrate trihydrate | 10031-43-3; | 2.4 |
| | 3251-23-8 | |
| | [anhydrous] | |
| Water | 7732-18-5 | 97.6 |

Toxicological Data on Ingredients: Cupric nitrate trihydrate: ORAL (LD50): Acute: 940 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, liver. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Do not ingest. Do not breathe gas/fumes/ vapor/spray. If ingested, seek medical advice immediately and show the container or the label.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection:

Safety glasses. Synthetic apron. Gloves (impervious). Normal room ventilation is adequate unless the exposure limit of the airborne contaminant is exceeded. If the exposure limit is exceeded, a vapor (air purifying) respirator is recommended.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

Cupric nitrate trihydrate TWA: 1 CEIL: 2 from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Odorless.

Taste: Not available.

Molecular Weight: Not applicable.

Color: Clear Blue.

pH (1% soln/water): Not available

Boiling Point: The lowest known value is 100°C (212°F) (Water).

Melting Point: Not available.

Critical Temperature: Not available.

Specific Gravity: Weighted average: 1.01 (Water = 1)

Vapor Pressure: The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density: The highest known value is 0.62 (Air = 1) (Water).

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: Easily soluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Slightly reactive to reactive with reducing agents, combustible materials, organic materials, metals.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Incompatible with easily oxidizable materials, paper, wood, organic substances, acetylene, hydrazine, nitromethane, ammonia + potassium amide, acetic anhydride, sodium hypobromide, nitromethanes, potassium ferrocyanide, ether, tin. Reacts vigorously with ether. (Cupric nitrate trihydrate)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Skin contact. Eye contact.

Toxicity to Animals: Acute oral toxicity (LD50): 39167 mg/kg (Rat) (Calculated value for the mixture).

Chronic Effects on Humans: May cause damage to the following organs: kidneys, liver.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause skin irritation Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea, metallic taste. May affect behavior/central nervous system (convulsions, somnolence, excitation followed by central nervous system depression). May affect the liver and kidneys Chronic Potential health effects: Repeated ingestion may affect the liver and kidneys, Repeated exposure by skin contact may also cause dermatitis, a skin allergy. Medical Conditions Aggravated by Exposure: Persons with impaired liver, or kidney function, glucose-6-phosphate dehydrogenase deficiency, or pre-existing Wilson's disease. Individual's with Wilson's disease are unable to metabolize copper. Therefore, copper accumulates in various tissues and may result in liver, and kidney damage

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations:

Connecticut hazardous material survey.: Cupric nitrate (anhydrous CAS no. 3251-23-8) Illinois chemical safety act: Cupric nitrate (anhydrous CAS no. 3251-23-8) New York release reporting list: Cupric nitrate (anhydrous CAS no. 3251-23-8) Rhode Island RTK hazardous substances: Cupric nitrate (anhydrous CAS no. 3251-23-8) Pennsylvania RTK: Cupric nitrate (anhydrous CAS no. 3251-23-8) Massachusetts RTK: Cupric nitrate (anhydrous CAS no. 3251-23-8) Massachusetts spill list: Cupric nitrate (anhydrous CAS no. 3251-23-8) New Jersey: Cupric nitrate (anhydrous CAS no. 3251-23-8) New Jersey spill list: Cupric nitrate (anhydrous CAS no. 3251-23-8) Louisiana spill reporting: Cupric nitrate (anhydrous CAS no. 3251-23-8) TSCA 8(b) inventory: Water. Cupric Nitrate trihydrate (CAS no. 10031-43-3) is exempt from TSCA listing (not TSCA listed) since it is a hydrate. SARA 313 toxic chemical notification and release reporting: Cupric nitrate trihydrate 2.4% Listed as Copper compounds CERCLA: Hazardous substances.: Cupric nitrate (anhydrous CAS no. 3251-23-8): 100 lbs. (45.36 kg);

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

Not available Not available

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 0

Reactivity: 0

Personal Protection: C

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Not applicable. Synthetic apron. Not applicable. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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