SRCDTA

Cupro Flo 200 and Cupro Flo 210

Material Safety Data Sheet

1. Product And Company Identification

Supplier

Lucas-Milhaupt, Inc.
A Handy & Harman Company
5656 South Pennsylvania Avenue
Cudahy, WI 53110
Telephone Number: 414-769-6000
FAX Number: 414-769-1093

Supplier Emergency Contacts & Phone Number

800-424-9300 (Chemtrec):

Manufacturer

Lucas-Milhaupt, Inc.
A Handy & Harman Company
5656 South Pennsylvania Avenue
Cudahy, WI 53110
Telephone Number: 414-769-6000
FAX Number: 414-769-1093

Manufacturer Emergency Contacts & Phone Number

800-424-9300 (Chemtrec):

Issue Date: 08/17/2004
Product Name: Cupro Flo 200 and Cupro Flo 210
CAS Number: Not Established
MSDS Number: 473
Product Code: 83-610; 83-611

Product Identification Text

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

2. Composition/Information On Ingredients

Ingredient Name - (CAS Number) - %

Copper (7440-50-8)
Isoparaffinic hydrocarbon (64742-48-9)
Nickel (7440-02-0)
Phosphorus (7723-14-0)
Potassium fluoborate (14075-53-7)
Tin (7440-31-5)

No Data Available...

3. Hazards Identification

Primary Routes(s) Of Entry

Ingestion; inhalation

Eye Hazards

SRCDTA

Eye contact with this product may cause irritation.

Skin Hazards

This product can produce dermal irritation and defatting of the skin. Prolonged exposure can cause dermatitis.

Ingestion Hazards

Some components of this product are potentially toxic if ingested, and may cause one or more of the following symptoms and effects: nausea, vomiting, diarrhea,abdominal pain, gastrointestinal irritation, cramps, convulsions, and central nervous system depression.

Inhalation Hazards

Inhalation of the components of this product is not known to present a significant risk to health when used according to instructions and with appropriate protective measures (see Section #8). Inhalation of component elements has been reported to cause one or more of the following symptoms and effects upon excessively high or prolonged exposure:

COPPER: Acute exposure may cause respiratory tract irritation, fever, muscle ache, chills, cough, weakness, and a metallic taste. Chronic exposure may damage the liver, kidney, spleen, pancreas, and brain.

ISOPARAFFINIC HYDROCARBON: Inhalation may cause irritation to the nose, throat, and respiratory tract; nausea, dizziness, vomiting, and central nervous system (CNS) depression.

NICKEL: Acute exposure to nickel may cause headache, nausea, vertigo, and pulmonary edema. Chronic exposure may increase the risk of cancer to the nasopharynx, lungs, prostate, and kidney.

PHOSPHORUS: The red formof phosphorus is stable and relatively non-toxic at room temperature. When heated in the presence of air, it is converted to phosphorus pentoxide, which is corrosive and irritating to the eyes, nose, throat, and mucous membranes.

POTASSIUM FLUOBORATE: Acute exposure may irritate the nose, throat, and respiratory tract. Chronic exposure may cause abdominal pain and cramps, liver and kidney damage, impaired pulmonary function, and fluorosis (a disease characterized by mottled teeth, osteosclerosis, and pain and loss of mobility in joints).

TIN: Exposure to tin dust or fume by inhalation can cause stannosis (a benign pneumoconiosis), shortness of breath, and respiratory tract irritation.

4. First Aid Measures

Eye

Flush affected areas with water for at least fifteen minutes. Seek medical assistance if necessary.

Skin

Remove contaminated clothing. Wash affected area with large quantities of water for at least five minutes. Seek medical attention if necessary. Launder or dry-clean clothing before reuse.

Ingestion

SRCDTA

Do not induce vomiting. Seek immediate medical assistance. Do not attempt to give anything by mouth to an unconscious person.

Inhalation

If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

Note To Physician

The isoparaffinic hydrocarbon component may cause gastrointestinal irritation, nausea, and vomiting. There is potential for aspiration into the lungs, which may cause pulmonary edema, increased respiration rate, coughing, choking, and gagging. If swallowed, do not induce vomiting, as this can irritate the esophagealtract.

5. Fire Fighting Measures

Flash Point: ca. 104 F ca. 40 C
Autoignition Point: ca. 560 F ca. 293 C
Flammability Class: II
Lower Explosive Limit: ca. 1.2
Upper Explosive Limit: ca. 9.6

Fire And Explosion Hazards

This product may ignite when exposed to flame and/or incompatible materials (see Section #10). If containers are not sealed, the product can give off vapors that may settle in low areas, or travel some distance along the surface to ignition sources where they can ignite. If present in a fire or explosion, it may emit carbon monoxide, smoke, aldehydes, irritant combustion byproducts, fluorides, and fumes of the constituent metals and/or metal oxides.

Extinguishing Media

Use foam, dry chemical or carbon dioxide. Do not use water to extinguish a fire, as it may be ineffective.

Fire Fighting Instructions

If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

6. Accidental Release Measures

Eliminate sources of ignition. Isolate spilled material and transfer to impervious containers. Avoid contact with skin, eyes, and mucous membranes. Wear appropriate protective equipment (e.g., gloves, chemical goggles) during cleanup and disposal.

7. Handling And Storage

Handling Precautions

Avoid contact with skin and clothing.

Storage Precautions

Store in a cool, dry place away from sources of ignition and incompatible

materials (see Section #10).

Work/Hygienic Practices

To minimize ingestion, wash hands and face before eating, drinking, applying cosmetics, or using tobacco.

8. Exposure Controls/Personal Protection

Engineering Controls

Use appropriate ventilation (e.g., dilution, local exhaust) adequate to maintain concentrations of all components and their byproducts to within their applicable standards.

Eye/Face Protection

Wear eye protection adequate to prevent eye contact with the product and injuryfrom the hazards of brazing. Plastic-frame spectacles with side shields and filter lenses (shade #3 or #4) are recommended.

Skin Protection

Wear appropriate protective gloves and clothing to prevent skin injuries from the hazards of brazing and/or for prolonged or repeated contact with the product.Avoid flammable fabrics.

Respiratory Protection

If an exposure level exceeds an applicable exposure standard, use a NIOSH-approved respirator having a configuration (type of facepiece, filter media, assigned protection factor, etc.) appropriate to the concentration of the contaminant(s) generated. For guidance on selection and use of respiratory protection, consult American National Standard Z88.2 (ANSI, New York, NY 10036 USA).

Ingredient(s) - Exposure Limits

Copper
    ACGIH TLVs: 0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dusts and mists)
    OSHA PELs: 0.1 mg/m3 TWA (fume); 1 mg/m3 TWA (dusts and mists)
Isoparaffinic hydrocarbon
    ACGIH TLV: 300 ppm TWA (recommended by manufacturer)
    OSHA PEL: 500 ppm TWA (as petroleum distillates)
Nickel
    ACGIH TLV: 1.5 mg/m3 TWA OSHA PEL: 1 mg/m3 TWA
Phosphorus
    No applicable ACGIH TLV(s) No applicable OSHA PEL(s)
Potassium fluoborate
    ACGIH TLV: 2.5 mg/m3 TWA (as F-). OSHA PEL: 2.5 mg/m3 TWA (as F-)
Tin
    ACGIH TLV: 2 mg/m3 TWA (as Sn) OSHA PEL: 2 mg/m3 TWA (as Sn)

9. Physical And Chemical Properties

Appearance

Gray to black slurry, mineral spirits odor.

Chemical Type: Mixture
Physical State: Liquid

SRCDTA

Percent Volitales: ca. 12
Percent VOCs: Not Applicable (N/A)
Vapor Pressure: <3 mm Hg
Solubility: Insoluble
Evaporation Rate: <0.3 (n-Butyl Acetate = 1)

10. Stability And Reactivity

Stability: stable
Hazardous Polymerization: will not occur

Conditions To Avoid (Stability)

Some components of the product may decompose at elevated temperatures. Copper can form an unstable acetylide if in contact with acetylene gas.

Incompatible Materials

Strong oxidizing agents; halogens; hypochlorites; perchlorates; ammonium nitrate; sulfur; inorganic and organic peroxides; bromates, chlorates, and iodates of alkali and alkali earth metals; hydrazine; hydrazoic acid; performic acid; selenium; dioxane; chlorine trifluoride; bromine trifluoride; cupric nitrate.

Hazardous Decomposition Products

Heating to elevated temperatures may liberate carbon monoxide, smoke, aldehydes, irritant combustion byproducts, oxides of the constituent metals, fluorides, and phosphorus pentoxide.

11. Toxicological Information

Reproductive Effects

Nickel has produced fetotoxic and teratogenic effects in animal studies.

Mutagenicity (Genetic Effects)

Nickel has produced mutagenic responses in mammalian cell cultures. Inorganic fluoride compounds have been demonstrated to induce mutagenic changes in mammalian cell in culture. The significance of these findings to human health risks isunknown.

Conditions Aggravated By Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure. Chronic overexposure may aggravate pre-existing diseases of the liver, kidneys, gastrointestinal system, skeletal system, and nervous system. Skin contact may aggravate an existing dermatitis.

Ingredient(s) - Carginogenicity

Nickel
    NTP - Listed On The National Toxicology Program
    Listed In The IARC Monographs

Ingredient(s) - Toxicological Data

Copper
    LD50: No data available LC50: No data available
Isoparaffinic hydrocarbon
    LD50: No data available LC50: No data available
Nickel

SRCDTA

    LD50: 5 gm/kg (oral/rat)   LC50: No data available
Phosphorus
    LD50: No data available   LC50: No data available
Potassium fluoborate
    LD50: No data available   LC50: No data available
Tin
    LD50: No data available   LC50: No data available

12. Ecological Information

In its intended manner of use, this product should not be released into the environment, and adverse effects on ecosystems are not anticipated under recommended conditions of use, storage, and disposal.

13. Disposal Considerations

Dispose of unused or unusable product in accordance with applicable Federal, State/Provincial, and local regulations.

14. Transport Information

Proper Shipping Name

Combustible liquid, n.o.s. (contains petroleum distillates)

Hazard Class

Combustible liquid

DOT Identification Number

NA1993

Packaging Exceptions

49CFR Part 173.150

Additional Shipping Paper Description

When subject to either the International Air Transport Association (IATA) or the International Maritime Dangerous Goods (IMDG) Codes, this product is classified as follows:

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (contains petroleum distillates)

Class (Packing Group): 3 (III)

Identifying Code: UN1993

15. Regulatory Information

SARA Hazard Classes

Acute Health Hazard; Chronic Health Hazard; Fire Hazard

Ingredient(s) - U.S. Regulatory Information

Copper
    SARA Title III - Section 313 Form "R"/TRI Reportable Chemical
Nickel
    SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

SRCDTA

Phosphorus
    SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

Ingredient(s) - State Regulations

Nickel
    California - Proposition 65

Canadian Regulatory Information

WHMIS Class(es) and Division(s): B3, D2A, D2B
Components on Ingredients Disclosure List:
        1. Copper, elemental (CASRN 7440-50-8)
        2. Fluoride compounds, inorganic, n.o.s.
        3. Nickel, elemental (CASRN 7440-02-0)
        4. Phsophorus (CASRN) 7723-14-0)
        5. Tin, elemental (CASRN 7440-31-5)

16. Other Information

Revision/Preparer Information

This MSDS Superceeds A Previous MSDS Dated: 08/08/2001

Disclaimer

Although reasonable care has been taken in the preparation of this document, weextend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regardingthe suitability of this information for the user's intended purposes or for theconsequences of its use. Each individual should make a determination as to thesuitability of the information for their particular purpose(s).

Lucas-Milhaupt, Inc.