

BACKGROUND

April 13-92

The product will be used ~~as~~ for Manufacturing of of copper base antifouling pesticides paint products

RECOMMENDATIONS

The data submitted are adequate to place the product in the following toxicity categories

<u>STUDY</u>	<u>TOXICITY CATEGORY</u>
Acute Oral	_____
Acute Dermal	_____
Acute Inhalation	_____
Skin Irritation	_____
Eye Irritation	_____
Dermal Sensitization	_____

Other Studies required or recommendations for request of further testing

None

CRP STATUS

This product ~~does~~/does not require special packaging

Label

- 1) Revise the label as follows:
delete the word "THE" from the statement " Keep out of the reach of children" to read KEEP OUT OF REACH OF CHILDREN"

2) Add to the precautionary labeling "maybe fatal if inhaled."

APR 13 1992

3) The inhalation study needs clarification since the submitted data spans 2 toxicity categories the LC50 of this product must be determined in order that the proper tox category can be assigned.



STAR METAL PRODUCTS, INC.

For the formulation of marine antifouling pesticide paint products

PRODUCT: CUPROUS OXIDE
GRADE: AA
CUST CODE:

NET WT:
LOT NO:
OPR:

DIRECTIONS FOR USE:

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This product is designed for use in the manufacturing or formulating of copper based marine antifouling pesticide paint products. Those persons using this product to formulate antifouling products are responsible for the registration of their products with the Environmental Protection Agency prior to marketing.

STORAGE AND DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal.
STORAGE: Store powder inside dry area, -20° to 40°C (0° to 100°F). Powder will oxidize, do not leave container open.
PESTICIDE DISPOSAL: Product that cannot be used according to label instructions must be disposed of according to federal, state or local procedures under the Resource Conservation and Recovery Act.
CONTAINER DISPOSAL: Dispose of container by triple rinsing and recycling or puncturing and disposing in a sanitary landfill or by other approved State and local procedures. If burned, stay out of smoke.

EPA Est. No. 63005-NC-1
FPA Reg. No. 63005-1

HMS/RATING

RECEIVED
MAR 13 1997

HEALTH HAZARD: 3-SERIOUS.
MAJOR INJURY WITHOUT PROMPT MEDICAL TREATMENT.
FLAMMABILITY HAZARD: 0-MINIMAL.
NORMALLY STABLE, WILL NOT BURN UNLESS HEATED.
REACTIVITY HAZARD: 0-MINIMAL.
NORMALLY STABLE, WILL NOT REACT WITH WATER.

Under the Resource Conservation and Recovery Act, as amended for the purpose of this Act, this material is classified as a hazardous waste under RCRA 40 CFR 261.240-261.245-1

SAFETY EQUIPMENT: E GLASSES, GLOVES, AND DUST RESPIRATOR.	
B	E
1	J

INGREDIENTS:

ACTIVE INGREDIENT:		CAS NO.
Cuprous Oxide	95.08	1317-39-1
INERT INGREDIENTS:	5.08	N/A
TOTAL	100.08	
Copper as Metal	1.08	7440-50-8

STATEMENT OF PRACTICAL TREATMENT:

IF IN EYES: Flush immediately with large amounts of water.
IF ON SKIN: Wash skin using soap or mild detergent and water.
IF INHALED: Move to fresh air.
IF SWALLOWED: Immediately drink large quantities of water. Do not induce vomiting. Call a physician.
WHENEVER FIRST AID IS GIVEN, FOLLOW WITH MEDICAL ATTENTION.
PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS:

WARNING: Causes eye, skin and upper respiratory tract irritation. Harmful if swallowed; causes gastrointestinal tract irritation. Copper metal may cause metal fume fever. Wear goggles or face shield, rubber gloves and an appropriate dust respirator when handling. Do not contaminate water, food or feed with storage. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS:

This material is toxic to fish. Do not apply directly to water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, rivers, oceans or public waters unless this product is specifically identified and addressed in a NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment authority. For guidance contact your State Water Board or Regional Office of the Environmental Protection Agency.

KEEP OUT OF THE REACH OF CHILDREN.
WARNING!

TECHNICAL SUPPORT SECTION TOXICOLOGY REVIEW - I

Disinfectants Branch

IN MARCH 5-92 OUT MARCH 9-92

Reviewed by Alex Arce Date MARCH 9-92

EPA Reg. No. or File Symbol 63005-1

EPA Petition or EUP No. NONE

Date Division Received 2-20-92

Type Product(s): I, D, H, F, N, R, S Antifouling Paint

Data Accession No(s). 422105-01-02-03-04 and 05

Product Mgr. No. J.H. Lee / Nobel

Product Name(s) Cuprous Oxide - Grade AA

Company Name(s) SCM Metal Products, Inc.

Submission Purpose Review of submitted data

Chemical & Formulation Cuprous Oxide 95.0%
Powder

Active Ingredient(s):

Cuprous Oxide 95.0%

CONCLUSION

A revision of the label as indicated in letter JAN 6-1992 is required. The Signal word is "Warning"

COMMENTS

The inhalation Toxicity study LC 50 is not clear since there are 2 results; One gives (# one) a LC50 > 10 mg/l - Tox Cat II signal word "Warning", The other (# Two) gives a LC50 < .59 mg/l Tox Cat III signal word "Caution"

Review using last label

BACKGROUND

The product will be used as Antifouling Paint for Manufacturing use only.

RECOMMENDATIONS

The data submitted are adequate to place the product in the following toxicity categories

<u>STUDY</u>	<u>TOXICITY CATEGORY</u>
Acute Oral	<u>IV</u>
Acute Dermal	<u>III</u>
Acute Inhalation	<u>(> III and II) TOX II</u>
Skin Irritation	<u>IV</u>
Eye Irritation	<u>II</u>
Dermal Sensitization	<u>Not required</u>

Other Studies required or recommendations for request of further testing

No further studies are required. Enough information has been submitted to establish a Toxicity Category and a Signal Word.

CRP STATUS

This product ~~does~~/does not require special packaging

Label Follow instructions attached
Refer to CFR 40 - § 156.44 "Signal Word" and 162.10 "Precautionary Statement"

Revise the label as follows:

- ① The signal word to be used is "WARNING"
- ② "Directions for use" instructions as per memo Jan -6-92 are required
- ③ The last label submitted (date Oct 18 1990) does not give the % of A-1; refer to Anna Skapara report of 8-30-90

statement of practical treatment (first aid or other) shall appear on the front panel of the label of all pesticides falling into Toxicity Category I on the basis of oral, inhalation or dermal toxicity. The Agency may, however, permit reasonable variations in the placement of the statement of practical treatment is some reference such as "See statement of practical treatment on back panel" appears on the front panel near the word "Poison" and the skull and crossbones.

(B) *Other toxicity categories.* The statement of practical treatment is not required on the front panel except as described in paragraph (h)(1)(iii)(A) of this section. The applicant may, however, include such a front panel statement at his option. Statements of practical treatment are, however, required elsewhere on the label in accord with paragraph (h)(2) of this section if they do not appear on the front panel.

(iv) *Placement and prominence.* All the require front panel warning statements shall be grouped together on the label, and shall appear with sufficient prominence relative to other front panel text and graphic material to make them unlikely to be overlooked under customary conditions of purchase and use. The following table shows the minimum type size requirements for the front panel warning statements on various sizes of labels:

Size of label front panel in square inches	Points	
	Required signal word, all capitals	"Keep out of reach of children"
5 and under	6	6
Above 5 to 10.....	10	6
Above 10 to 15.....	12	8
Above 15 to 30.....	14	10
Over 30.....	18	12

(2) *Other required warnings and precautionary statements.* The warnings and precautionary statements as required below shall appear together on the label under the general heading "Precautionary Statements" and under appropriate subheadings of "Hazard to Humans and Domestic Animals," "Environmental Hazard" and "Physical or Chemical Hazard."

(1) *Hazard to humans and domestic animals.* (A) Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. The precautionary paragraph shall be immediately preceded by the appropriate hazard signal word.

(B) The following table depicts typical precautionary statements. These statements must be modified or expanded to reflect specific hazards.

Toxicity category	Precautionary statements by toxicity category	
	Oral, inhalation, or dermal toxicity	Skin and eye local effects
I.....	Fatal (poisonous) if swallowed [inhaled or absorbed through skin]. Do not breathe vapor [dust or spray mist]. Do not get in eyes, on skin, or on clothing [Front panel statement of practical treatment required.].	Corrosive, causes eye and skin damage [or skin irritation]. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal if swallowed. [Appropriate first aid statement required.]
II.....	May be fatal if swallowed [inhaled or absorbed through the skin]. Do not breathe vapors [dust or spray mist]. Do not get in eyes, on skin, or on clothing. [Appropriate first aid statements required.].	Causes eye [irritation] irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. [Appropriate first aid statement required.]
III.....	Harmful if swallowed [inhaled or absorbed through the skin]. Avoid breathing vapors [dust or spray mist]. Avoid contact with skin [eyes or clothing]. [Appropriate first aid statement required.].	Avoid contact with skin, eyes or clothing. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.
IV.....	[No precautionary statements required.]	[No precautionary statements required.]

(ii) *Environmental hazards.* Where a hazard exists to non target organisms excluding humans and domestic animals, precautionary statements are re-

quired stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury or damage. Examples of the

DATA REVIEW

Test Laboratory: Product Safety Labs
Laboratory test identification Number T-1167

Acute Oral LD50 CFR 81.1

Report date: Jan 14 - 92 MRID No. 422105-05
Method of Testing: CFR-158 81-1
Species: Rat Sex: M & F Age: ADULT
Levels Tested: 5000 and
7000 mg/Kg
Weights: Acceptable No. Animals/dose: 5M x 5F
Material: In corn oil Via: GAVAGE
Observation days: 14
Necropsy: all

Procedure

The rats were treated with the material in empty stomachs and observed for signs of toxicity.

Results

Signs of Toxicity: diarrhea - ano-genital stains, lethargy.
Mortality: 1/5 at 5000; 1/5 at 7000 mg/Kg
Body weights: Survivors gained weight.
Necropsy: brown/red color in G-I tract and fluid filled stomachs

Conclusion: The Acute Oral LD50 is > 7000 mg/Kg

Core MINIMUM data

Toxicity Category: IV

Laboratory Product Safety Labs.

Test Number T 1168

Report Date: Jan 14 92

MRID No. 422105-02

Method of Testing: CFR 81.2

Species: Rabbit Sex: M & F Age: Adult

Levels Tested: 2000 mg/kg

No./animals/dose 5M & 5F

Via: Occluded patch test

Weight: Acceptable

Observation days: 14

Material: Undiluted

Necropsy: all

Procedure The animals were treated with the material in previously clipped areas of the skin protected with and occluded patch and observed for signs of toxicity. The material was in contact for 24 hours

Result

Signs of Toxicity: Transient fecal & urine output reduction

Mortality: None

Body weights: Gained

Necropsy: Anatomically

Conclusions: The Acute Dermal LD₅₀ is > 2000 mg/kg

Core Minimum data

Toxicity Category: III

Acute Inhalation LC50 CFR 31.3

Laboratory Product Safety Labs Test Number T-1169

Report Date: Feb 3 -92 MRID: 422105-03

Method of Testing: CFR 81-3 Measurements: Nominal Actual

Species: Rats Sex: M & F Age: Adult Chamber size 100-liters

Levels Tested: 0.10, 0.59 and 5.07 No. animals/dose: 5M & 5F

Temperature: Measured Air Flow: periodically; a: Dust exposure in chamber

Weight: Acceptable Observation days: 14

Material: Was grounded to Necropsy: all

Procedure achieved desirable particle size

The rats were exposed to the material in a "perspex" chamber. Gravimetric samples were collected from the breathing zone. Particle and size distribution were assessed; air flow was calibrated; Exposure period were 4 1/2 hours.

Animals were observed for signs of toxicity.

Results

Signs of toxicity: { at 0.10 avg. lt. irreg. resp, lethargy, hunched posture
at 0.59 " " " " " "
at 5.07 " " Observations not possible due

Mortality: 0/5 M & F at 0.10; 4/5 M and 5/5 F at 0.59 and 10/10 at 5.07

Body Weights: at 0.1, inc tail loss with a subsequent gain (Other dose, dead)

Necropsy: 0.1, red lungs; 0.59, edema and foam in lungs; at 5.07, Edema of severe nature and mucous.

Conclusions: The Acute Inhalation LC50 is between 0.10 and 0.59

mg/l; 4 1/2 h. ex

Core Minimum data

Toxicity Category: II

Note Pre test trials were performed at a large range of concentrations from 0.95 to 5.75 mg/l.

Primary Eye Irritation

CFR 81.4

Product Safety Labs # 1166

Report Date: Jan 14 92 MRID No.: 422105-04

Method of Testing: CFR 81-4

Species: Rabbit white NZ Observation days: Till the 14th day

Dose: 0.1 g Materials: Undiluted

No. of animals: 6 Via: placed into conjunctival sac

Areas: 1 eye - other - control Necropsy: No

Procedure

The one eye of each rabbit was treated with the material instilled into the conjunctival sac and observed for signs of irritation at the 1, 24, 48, 72 hours and at the 4, 7 and 10-14 days using high intensity white light (Mag lite)

Results: Moderate Corneal opacity 4/6 and Iritis developed in 6/6

Conjunctival irritation was Moderate in 6/6

The eyes cleared at 10 day

Core Minimum data

Toxicity Category: II

Primary Skin Irritation

CFR 81.5

Product Safety # 1167

Report Date: Jan 14, 92 MRID No.: 422105-05
Method of Testing: CFR 81.5
Species: Rabbit Observation days: 72 hours
No. of animals: 6 Material: Undiluted
Dose: 0.5 gm - 4 hours exposure via: Patch Test - wrap.
Areas: On the back - lumbar Necropsy: No

Procedure

The rabbits were treated with the material in previously clipped areas of the skin, under a protective wrap and observed for signs of irritation

Results: 2/6 mild edema . Irritation was found in 2/6 animals

Conclusion: The product is a Mild skin irritant of
Temporary (1 hour) duration

Core Maximum data

Toxicity Category: IV