



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 28 1996

MAY 28 1996

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Review of copper naphthenate incident reports

TO: Jack Housenger, Chief
Special Review Branch
Special Review and Reregistration Division (7508W)

FROM: Jerome Blondell, Ph.D., Health Statistician *Jerome Blondell*
Special Review and Registration Section
Occupational and Residential Exposure Branch
Health Effects Division (7509C)

THRU: Bart Suhre, Acting Section Head *Bart Suhre*
Special Review and Registration Section
Occupational and Residential Exposure Branch
Health Effects Division (7509C)

Larry Dorsey, Chief *Larry Dorsey*
Occupational and Residential Exposure Branch
Health Effects Division (7509C)

The following data bases have been consulted for the poisoning incident data on the active ingredient copper naphthenate (PC Code: 023102):

- 1) OPP Incident Data System (IDS) - reports of incidents from various sources, including registrants, other federal and state health and environmental agencies and individual consumers, submitted to OPP since 1992.
- 2) Poison Control Centers - as the result of Data-Call-Ins issued in 1993, OPP received Poison Control Center data covering the years 1985 through 1992 for 28 organophosphate and carbamate chemicals. Most of the national Poison Control Centers (PCCs) participate in a national data collection system, the Toxic Exposure Surveillance System which obtains data from about 70 centers at hospitals and universities. PCCs provide telephone consultation for individuals and health care providers on suspected poisonings, involving drugs, household products, pesticides, etc.

3) California Department of Food and Agriculture (replaced by the Department of Pesticide Regulation in 1991) - California has collected uniform data on suspected pesticide poisonings since 1982. Physicians are required, by statute, to report to their local health officer all occurrences of illness suspected of being related to exposure to pesticides. The majority of the incidents involve workers. Information on exposure (worker activity), type of illness (systemic, eye, skin, eye/skin and respiratory), likelihood of a causal relationship, and number of days off work and in the hospital are provided.

4) National Pesticide Telecommunications Network (NPTN) - NPTN is a toll-free information service supported by OPP. A ranking of the top 200 active ingredients for which telephone calls were received during calendar years 1984-1991, inclusive has been prepared. The total number of calls was tabulated for the categories human incidents, animal incidents, calls for information, and others.

COPPER NAPHTHENATE REVIEW

I. IDS

Only 2 incidents related to copper naphthenate are contained in the Incident Data System which currently has reports on over 6,000 human incidents. One of these cases was reported by a registrant and the other was reported by the EPA Regional Office. It is not clear whether this low number of reports reflects an unusually good safety record or lack of reporting by the principle registrants.

Monsanto reported on a case involving a female householder who reportedly became ill after the restaurant below her flat was treated with wood preservative. This case was considered to be pending and not confirmed. No specific symptoms were reported.

EPA Region X submitted a report of an investigation by the Washington Department of Agriculture. In this case a couple had a handyman apply copper naphthenate to the crawl space under their porch. Shortly after the application the couple noticed a strong odor and complained of adverse health effects. The application took place April 19 and the complaint was taken on May 5, 16 days after the application. An inspector visited the home on May 6 and reported "I could detect an odor in the living area of the house. I did not find the odor inside to be overpowering, but I could definitely smell it. . . . When I examined the porch area from outside, the odor was very much more pronounced." The couple moved out of their house for several months in order to escape the fumes.

The inspector for the Washington State Department of Agriculture found no violations and analysis of the cans of product left behind showed no unexpected levels of copper. The Chief of the Pesticide and Toxic Substances Branch in EPA Region X reviewed

the label. He did support the couples' complaint that no rate per area for application was specified and that residents were not advised to avoid breathing the vapor. He recommended more explicit directions that would prevent residents, particularly those who are sensitive to chemicals, from undue exposure to this pesticide.

II. Poison Control Center Data

Copper Naphthenate was not one of 28 chemicals for which Poison Control Center data were requested.

III. California Data - 1982 through 1991

Detailed descriptions of 48 cases submitted to the California Pesticide Illness Surveillance Program were reviewed. Twenty-five (25) involved exposure to copper naphthenate in combination with other products where the primary cause of the illness could not be determined. Twenty-two (22) of these 25 cases involved chlordane application to the exposed subarea of a single family residence in May of 1986 and copper naphthenate to the wood kitchen floor prior to laying linoleum in November 1986. The 22 people became ill while living at or visiting the house from June 1986 through at least March 1987. Symptoms included stomach cramps, vomiting and headaches. Swab samples of the basement floor found measurable levels of chlordane and swab samples of the kitchen floor found measurable levels of copper. A Notice of Violation was issued for application inconsistent with the product labeling of both products.

There were 23 cases involving copper naphthenate as the primary cause of the illness. The applicator was the victim in 14 of these 23 cases, half of which got the material in their eyes, two of which had skin effects (chemical burns and contact dermatitis) and 4 of which sustained systemic effects such as headache, nausea, chest pain, abdominal aches, and blurred vision. Three of the four systemic cases occurred in enclosed spaces with poor ventilation. One applicator developed pain upon breathing deeply while pouring the product. Of the 9 remaining cases, 3 involved dermal effects, 2 had eye irritation, and 4 cases had systemic symptoms. These four systemic cases are described in more detail below:

- a homeowner developed headaches after the PCO treated his bathroom floor in a possible case.
- a tenant became ill with itching nose, numb lips, breathing difficulty, irritated eyes and burning throat every time she entered the house that had been treated in a probable case.
- while inspecting a house the individual touched some freshly applied wood preservative and later developed headache and a metallic taste in a probable case.
- a worker breathed fumes that came into his office from a chemical spill and felt nauseous, vomiting, and dizzy in a possible case.

IV. NPTN

On the list of the top 200 chemicals for which NPTN received calls from 1984-1991 inclusively, copper naphthenate was involved in 29 human incidents, which ranked 107.

V. Literature Reports of Human Poisonings.

Morgan (1989) reports that copper compounds are irritating to skin, respiratory tract, and particularly to the eyes. Soluble copper salts can be corrosive to mucous membranes and the cornea. "Limited solubility and absorption probably account for generally low systemic toxicities of most compounds."

Bluhm et al. (1992) reported on a family of three who lived in a home where copper naphthenate was sprayed on the inner foundation. Subsequently these individuals experienced non-specific symptoms. Serum copper levels were elevated when first measured months after the application. The authors concluded "It is not known if symptoms reflected exposure to naphthenate, the solvent vehicle, volatilized copper, or the stress of exposure to a malodorous compound perceived as toxic." The authors could not determine whether the copper levels in the serum represented toxic amounts.

VI. Use Information

The 1990 Home and Garden Pesticide Use Survey reported an estimated 198,000 containers of copper naphthenate in an equal number of U.S. households. The standard error for this estimate was quite large, so that the 95 percent confidence interval on this estimate would range from about 14,000 to about 382,000.

California has required and reported on all commercial applications since 1990. On average there were 2400 applications of 8800 pounds of copper naphthenate each year from 1990 through 1993. The ratio of acute worker systemic poisoning per thousand poisonings was about 0.2 per thousand applications. The median for agricultural workers using various insecticides including the more toxic organophosphate and carbamate insecticides was 0.4 per thousand for the years 1982 through 1989. However, these two ratios cannot be compared reliably for several reasons. Reporting of pesticide usage was not as complete from 1982 through 1989 and the pattern of use and exposure for agricultural insecticides is very different from copper naphthenate. Therefore, no conclusions are drawn concerning the significance of the 0.2 poisonings per thousand applications.

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VII. CONCLUSION

The information available on copper naphthenate poisoning incidents is very limited. Too few reports have been received nationwide to determine the primary risk factors associated with the use of copper naphthenate. However, the well-documented case reports do suggest that certain types of usage are likely to lead to problems. The case documented by Bluhm et al. (1992) and the IDS report from Washington State show that applications resulting in volatilization indoors can lead to a strong unpleasant odor that may lead residents to feel ill and even move out of their homes for several months. Significantly, Bluhm et al. noted they could not determine whether "symptoms reflected exposure to naphthenate, the solvent vehicle, volatilized copper, or the stress of exposure to a malodorous compound perceived as toxic." The EPA Regional Branch concluded, that whatever the source of the problem, the label should be strengthened to specify some type of rate of application and to warn occupants of the structure to avoid breathing vapors. The Occupational and Residential Exposure Branch supports these conclusions. From the California data it is clear that applicators should avoid breathing fumes in enclosed areas without proper ventilation and/or proper respiratory protection.

VIII. RECOMMENDATIONS

1. Labeling should be revised to specify how much material should be applied to a given area (e.g., so many ounces per square foot) or at least specify the manner in which application is conducted (e.g., apply one thin coat to completely cover all exposed wood surfaces).

2. Labeling should include language to warn not to apply in an enclosed area without proper ventilation. Respiratory protection is required for small enclosed areas with no or poor ventilation.

3. Do not apply indoors in a manner that will result in continuous exposure to residents of a structure. Advise residents near an application to avoid prolonged exposure to vapors.

or prohibit

? What is a safe time from app. to exposure
if applied in a well vent. area
2.55 min. min. ?

In situation where user is applying to a side of wall he has external use

References

Blondell JM (1994a) Memorandum: Review of Poison Control Center Data Call In. December 5, 1994. U.S. Environmental Protection Agency, Washington, DC.

Bluhm RE, Welch L, Branch RA. Increased blood and urine copper after residential exposure to copper naphthenate. Journal of Toxicology - Clinical Toxicology 30:99-108, 1992.

California Department of Pesticide Regulation. Pesticide Use Report Annual [1990, 1991, 1992, 1993]. California Environmental Protection Agency, Sacramento, 1991-1994.

Department of Pesticide Regulation. Case reports received by the California Pesticide Illness Surveillance Program in which health effects were attributed to exposure to copper naphthenate, alone or in combination 1982 - 1991. California Environmental Protection Agency, Sacramento, 1996.

Morgan DP (1989) Recognition and Management of Pesticide Poisonings, fourth edn. U.S. Government Printing Office, Washington, D.C. (Chapter 1, Organophosphate Insecticides, pp. 1-11.)

Whitmore RW, Kelly JE, Reading PL (1992) National Home and Garden Pesticide Use Survey Final Report, Volume I. Research Triangle Institute RTI/5100/17-01F, Research Triangle Park, NC.

cc: circulation
correspondence
copper naphthenate file

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DEPARTMENT OF PESTICIDE REGULATION

James W. Wells, Director

1020 N Street, Room 332
Sacramento, California 95814-5624



February 22, 1996

Mr. Steven L. Johnson, Director
Registration Division
Office of Pesticide Programs
U. S. Environmental Protection Agency
401 M Street, S.W. (H7505C)
Washington, D. C. 20460

Dear Mr. Johnson:

On December 28, 1995, the Department of Pesticide Regulation (DPR) placed products containing the active ingredient copper naphthenate into reevaluation. The reevaluation process is similar to your special review process. The reevaluation is based upon concerns that the use of such products indoors appears to be a hazard to human health. DPR's Worker Health and Safety Branch has received a number of reports of illnesses (enclosed) following exposure to pesticide products containing copper naphthenate.

Based upon the illness reports, we believe that products containing copper naphthenate should only be used in outdoor settings or where use does not result in the presence of ongoing odoriferous gases within living areas. DPR's Worker Health and Safety Branch has reviewed (enclosed) the use directions on the 37 currently registered products containing copper naphthenate. Of the 37 products, 10 contain label directions which limit their use to exterior areas. The remaining 27 products either specifically list indoor use sites or do not specifically prohibit indoor use.

We intend to inform registrants that they must mitigate potential adverse effects from the indoor use of their products. One way that they may choose to do that is by amending the label of their product to prohibit indoor use. Since the labels must be approved by your Agency prior to their acceptance by DPR, we are asking for your support for this project.



RECEIVED
3-7-96
REGISTRATION DIVISION
H7505C

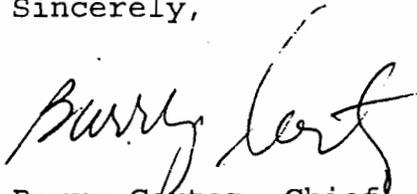
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Mr. Steven L. Johnson
February 21, 1996
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If you have any questions, please contact Ms. Ann Prichard at
(916) 324-3931.

Sincerely,



Barry Cortez, Chief
Pesticide Registration Branch
(916) 445-4377

Enclosures

cc: Ms. Ann Prichard



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**Case Reports Received by the California Pesticide Illness Surveillance Program
In Which Health Effects Were Attributed to Exposure to Copper Naphthenate, Alone or in Combination
1982 - 1992**

03

17

PESTICIDE(S)

INJURY

ACTIVITY

ILL

QUAL

CASE NO

CASE NO	RLTN	ILL QUAL	ILLNESS	ACTIVITY	DATE OF INJURY	DAYS OFF WORK	DAYS IN HOSPITAL	PESTICIDE(S)	COMMENTS
87-2480	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	CRAMPS, VOMITTING & ELEVATED LIVER ENZYME. SEE 87-697 FOR COMMENTS. SYMPTOMS: SEVERE COUGH, ELEVATED RBC & WBC.
87-2481	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SHPTOMS: BREATHING PROBLEMS, WEIGHT LOSS, TIREDNESS, COUGHING, & SICK TO HIS STOMACH.
87-2482	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: THROAT IRRITATION & POOR APPETITE.
87-2483	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: BLURRED VISION, IRRITABILITY & GASTRIC UPSET.
87-2484	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: ASTHMA, COUGH & HEADACHE.
87-2485	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: ALLERGIC RHINITIS & BRONCHIAL ASTHMA.
87-2486	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: ALLERGIC RHINITIS & BRONCHIAL ASTHMA.
87-2487	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOM: UPSET STOMACH.
87-2488	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: FLU-LIKE SYMPTOMS.
87-2489	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS.
87-2490	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: RESPIRATORY PROBLEMS.
87-2491	POS		SYS	OTHERNON	10/31/86	0	U	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS.
87-2492	POS		SYS	OTHERNON	10/31/86	0	U	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS.
87-2493	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS. SYMPTOMS: HEADACHES & VOMITING.
87-2494	POS		SYS	OTHERNON	10/31/86	0	0	CHLORDANE, COPPER NAPHTHENATE	SEE 87-697 FOR COMMENTS.

CASE NO	RLTN	ILL QUAL	ACTIVITY	DATE OF INJURY	DAYS OFF WORK	DAYS IN HOSPITAL	PESTICIDE(S)	COMMENTS
90-10	10	POS	SYS, DRIFTNOWN RESP	01/11/90	0	0	NOT DETERMINED, COPPER NAPHTHENATE, FENVALERATE	A TENANT OF APARTMENT NOTICED OOR FOR SEVERAL DAYS. APARTMENT WAS TREATED FOR TERMITES. SHE DEVELOPED ACHING LUNGS, STUFFY SINUSES, MAUSEA, FATIGUE, HEADACHE, MUSCLE CRAMPS, WATERY EYES AND FATIGUE. WOMAN IS APPARENTLY SENSITIVE TO CHEMICALS.
90-21	21	PRO	RESP	12/29/89	0	0	COPPER NAPHTHENATE	AN ELECTRICIAN BREATHED EXCESSIVE FUMES WHILE POURING WOOD PRESERVATIVE ON WOOD. HE WAS POURING IT BECAUSE THE SPRAYER WAS BROKEN. HE SUFFERED PAIN UPON BREATHING DEEPLY. DIAGNOSIS-INHALATION OF UNKNOWN LIQUID CAUSING ALLERGIC OR TOXIC SYMPTOMS.
90-763	763	DEF	EYE	03/26/90	2	0	COPPER NAPHTHENATE, PETROLEUM HYDROCARBONS	EMPLOYEE NAILING TREATED 2X4'S TOGETHER WHEN LIQUID SOLUTION OF COPPER NAPHTHENATE SQUIRTED OUT INTO EYES. NO PROTECTIVE GOGGLES WORN. SYMPTOM: TEARING, MILD IRRITATION TO EYES. DIAGNOSIS: CHEMICAL CONJUNCTIVITIS.
90-1127	1127	PRO	SKIN	05/13/90	0	0	COPPER NAPHTHENATE	DIAGNOSIS-CONTACT DERMATITIS. STUDENT EMPLOYEE WEARING RUBBER BOOTS, GLOVES, GOGGLES, RESPIRATOR AND RANSUIT TREATED WOODEN BENCHES WITH PRESERVATIVE. HE ACCIDENTLY RUBBED HIS NECK AND FACE WHILE WEARING THE RUBBER GLOVES.
90-2316	2316	POS	SYS	09/24/90	15	0	COPPER NAPHTHENATE	WORKER BREATHED FUMES FROM CHEMICAL SPILL THAT HAD BEEN CLEANED UP. FELT MAUSATED, VOMITTING/DIZZY. HISTORY OF LUNG AND HEART DISEASE. FUMES PERMEATED STORE AND GOT INTO THE WORKER'S OFFICE.
91-69	69	DEF	EYE	01/14/91	3	0	COPPER NAPHTHENATE	A CONSTRUCTION WORKER MIXED GAS WITH RESIDUAL MATERIAL IN A SPRAY TANK TO CLEAN IT OUT. AFTER SPRAYING SOME THROUGH THE NOZZLE, HE OPENED THE TANK WITHOUT RELEASING THE PRESSURE. SOME OF THE REMAINING LIQUID SPRAYED OUT AND INTO HIS EYES.
91-1303	1303	POS	SKIN	08/20/91	0	0	COPPER NAPHTHENATE	TRANSPORT DRIVER LEANED UP AGAINST A BUNDLE OF TREATED GREEN WOOD WHILE TALKING TO ONE OF THE WORKERS. LATER, LEFT ON A TWO DAY RUN & RASH BECAME NOTICEABLE. RASH REOCCURRED ONE MONTH LATER WITHOUT EXPOSURE. HAS PREVIOUSLY HAD RASH PROBLEMS AS WELL.
92-596	596	PRO	SYS, RESP	04/10/92	3	0	COPPER NAPHTHENATE	25-MON-92. OFFICE BUILDING OWNER TREATED TERMITE-INFESTED RAFTERS WITH OUTDOOR-USE COPPER NAPHTHENATE PRODUCT. WHEN THE BUILDING WARMED, VAPORS/OOORS FROM CHEMICAL ENTERED THE OFFICE SPACE BELOW. AIRCONDITIONER MADE IT WORSE. 18 DEVELOPED SYMPTOMS.
92-715	715	PRO	SYS, RESP	04/10/92	2	0	COPPER NAPHTHENATE	25-MON-92. SEE 92-596.
92-716	716	PRO	SYS, RESP	04/10/92	2	0	COPPER NAPHTHENATE	25-MON-92. SEE 92-596.

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Explanation of detailed listing generated from California
Pesticide Illness Surveillance Program database:

Case numbers are sequentially assigned each year; they are just arbitrary identification numbers. The column headed 'RLTN' (relationship) displays either 'DEF' (definitely related), 'PRO' (probable), or 'POS' (possible). Cases evaluated as not related to the pesticide exposure or unlikely to be related are not included in listings.

The 'ILL-QUAL' column carries notations for chronic or fatal cases. Since 1989, it has also included an indicator of an allergic mechanism. The 'ILLNESS' column indicates whether the symptoms involved skin, eye, respiratory tree (abbreviated RESP) and/or other systemic organs (abbreviated SYS). Prior to 1989, respiratory symptoms were not recorded separately from other systemic symptoms, and the only combination recorded was the combination of skin and eye irritation.

The activity categories should be generally self-explanatory. Those that begin with 'APPL' identify workers involved in applications. The second syllable of the 'APPL' abbreviations may be AIR, GROU (ground), HAND or OTHER. Activity 'FLAGGER' designates people exposed while flagging for aerial applications. Mixer/loaders are designated MIXLOAD, followed by A for air, G for ground, H for hand or U for unknown. A separate series of codes, distinguished by the opening 'FUMI', identifies fumigators, who are further categorized by suffixes 'CHAM' (operators of fumigation chambers), 'FIELD' (field fumigators), or 'TARP' (workers on fumigations other than of fields in which the fumigant is confined by a tarpaulin).

Exposures to residual pesticide are characterized by activity codes beginning with RESI. The final segment of these codes will be either 'FIELD', for contact with treated crops, 'STRU', for residue of structural applications, or 'OTHER'. Residue on harvested commodities being prepared for market at a site apart from the field is classified as 'PACK/PROC'. Until 1989, this code applied to residues on any sort of commodity.

Exposure through performing mechanical work on contaminated equipment is designated 'CLEAN/FIX'. Drift exposure, abbreviated 'DRIFTEXP', is a broad designation applied to anyone exposed in the course of an application who was not involved in making the application. The activity 'EMERRESP' stands for emergency response, and includes law enforcement officials, fire fighters, medical response personnel and HAZMAT teams. Activity code 'EXPOTOCONC' represents "exposed to concentrate" and indicates exposure to packaged product in the channels of trade, typically in the course of transportation or warehousing. Employees of pesticide manufacturers or formulators exposed at work receive the activity code 'MANUFORM'. Occupational exposures that conform to none of the above situations receive activity category 'OTHER'.

Memorandum

To : Barry Cortez, Branch Chief
Registration Branch

Date : January 19, 1996

Place : Sacramento

Phone: 445-4270

From : Department of Pesticide Regulation - Dennis Gibbons, CIH, Senior Industrial Hygienist
Worker Health and Safety Branch

Subject : Review of Use Directions for Products Containing Copper Naphthanate

I have reviewed the label use directions for the 37 copper naphthanate-containing products forwarded to our Branch. We believe these products should only be used in outdoor settings or where use does not result in the presence of ongoing odoriferous gases within living areas. Below I have listed the use instructions found on some of these products that specify outdoor or exterior use and should allow use without a residual problem. Also listed below are use instructions that allow indoor use or that are vague and may lead to indoor or enclosed area residue problems. We recommend indoor use instructions be removed or carefully reworded to avoid residual problems.

Label Use Directions for exterior use (acceptable):

- "Exterior use only"
- "Marine or below ground use"
- "Exterior wood in contact with soil , concrete, or water"
- "Do not use this product indoors, in enclosed areas, or on articles brought indoors"
- "Use only on exterior wood surfaces"

Label Use Directions that may present problems - vague general statements (specific "problem" wording is bolded and underlined)

- "protection against rot and mildew on any natural wood surface"
- "wood rot protection of interior use only needed on wood which is subject to frequent of prolonged wetting"
- "intended for use only on exterior wood surfaces"
- "... and wherever wood meets soil or water"
- "... and all wood exposed to moisture or weather"
- "... and similar items

Label Use Directions that may lead directly to residue problems - Specific uses

- "interior trim, wall paneling, furniture, flooring, sub-flooring." All of these uses bring the product indoors where problems may arise from continued offgassing of product ingredients.



Dibbons

- The wording for “**windows, window frames, doors, steps, boats, and porches**” might be acceptable if modified by a restriction to “apply only to the exterior” of these items. **Foundations and foundation sills** might be acceptable with the addition of wording to “apply only to the exterior” and prohibit applications within crawl spaces, under some porches, or other areas that may communicate with living spaces. Use on **shingles, medium and heavy shakes** may be acceptable with specific instructions on application method and rate. Over application can cause ongoing odor problems for the homeowner and neighbors for a period of time.

Many of the labels lack specific directions on the rate of application. This is understandable for some exterior uses, such as for treating fence posts. For this use, the fence post to be treated may be immersed directly in the product for a length of time. Also, for this use, a more-is-better approach can be justified, and there is little risk of residual problems. However, when this product is used indoors, the same approach to application rate can lead to problems associated with long term residue and odor problems. This application rate issue may be resolved by limiting use to outdoor uses only.

Specific labels and comments are listed on the attached pages. I have underlined and italicized what I feel are shortcomings or other points of concern for each label that should be changed or clarified. Suggestions for mitigation are contained between parenthesis.

In addition to review of the label use directions, the directions for personal protective equipment (PPE) was also reviewed. Although not part of the reevaluation action for these products, recommendations are also listed for improving the labels with regard to PPE.

cc: Dr. Michael O'Malley



Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)

Behr No. 90 Dock and Fence Post Preservative (Behr Process Corp)

EPA No.	32273-8
Acceptable use directions	Says "exterior" on label. Marine or below ground use. Exterior wood in contact with soil, concrete, or water. Docks, fenceposts, poles, timbers, and heavy wooden members.
Questionable use directions	<u>"protection against rot and mildew on any natural wood surface," "foundations"</u> (Acceptable with clarification to specify exterior use only).
Application rate	<u>Coverage: 100-300 sq ft (per gallon? - unit is not clear)</u> (specify unit)
PPE	(Recommendation: add hand and eye protection directions)

Chapman Cunapsol-1 Wood Preservative (Chapman Chemical Company)

EPA No.	1022-518
Acceptable use directions	Wood in contact with ground. Docks, fenceposts, poles, decks, fence pickets and rails, arbors
Questionable use directions	<u>Windows, window frames, boats, doors, stairs, porches, steps, sub-flooring, interior trim, wall paneling, furniture, flooring, foundation sills and beverage cases. "wood rot protection of interior use only needed on wood which is subject to frequent or prolonged wetting." "... and all wood exposed to moisture or weather."</u> (Acceptable with clarification to specify exterior use only, deletion of specific interior uses)
Application rate	<u>No information on application rate in terms of amount per area.</u> (add directions)
PPE	(Recommendation: add hand protection directions).

CSI 10-9-0 Green F.O. Wood Preservative (Chem Specialties Inc)

EPA No.	10356-20
Acceptable use directions	"intended for use only on exterior wood surfaces" including pole top; bore hole, posts, beams, lumber and structural wood. Surfaces that will be in contact with soil or concrete
Questionable use directions	<u>"intended"</u> for use only on exterior wood surfaces" (remove "intended" to specify exterior use only)
PPE	(Recommendation: add hand and eye protection)

CSI Cunap Wrap Wood Preservative (Chemical Specialties Inc)

EPA No.	10356-21
Acceptable use directions	Wood exterior surface wrap for above and below ground treatment for poles, posts, and pilings.
Questionable use directions	none
PPE	(Recommendation: add hand and eye protection)

Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)

Cuprinol Green No. 10 Wood Preservative (The Cuprinol Group)

EPA No.	577-541-AA
Acceptable use directions	Wood in contact with soil, water, or concrete. Docks.
Questionable use directions	<i>Foundation sills, boats, and all wood exposed to moisture or weather.</i> (Acceptable with clarification to use on exterior only)
PPE	(Recommendation: add hand and eye protection)

Cuprinol No.10 Green Preservative (Cuprinol Group)

EPA No.	577-541-2B
Acceptable use directions	Wood in contact with soil, water, or concrete. Fence posts, docks.
Questionable use directions	<i>foundation sills, boats, and all wood exposed to moisture or weather.</i> (Acceptable with clarification to use on exterior only)
PPE	(Recommendation: add hand and eye protection)

Sherwin Williams Wood Preservative Green No. 10 (Cuprinol Group)

EPA No.	577-541
Acceptable use directions	Wood in contact with soil, water, or concrete., docks.
Questionable use directions	<i>Foundation sills, boats, and all wood exposed to moisture or weather.</i> (Acceptable with clarification to use on exterior only)
PPE	(Recommendation: add hand and eye protection)

Dap Below Ground Wood Preservative (Dap Inc)

EPA No.	1022-518-1409
Acceptable use directions	Fence posts and poles.
Questionable use directions	none
PPE	(Recommendation: add hand protection)

Copper Naphthanate (Dussek Campbell Limited)

EPA No.	43437-4
Acceptable use directions	labeling states "For exterior only - not for any interior application." For textiles and wood. Fence posts, utility poles, cross ties, patio decking, landscape logs and timber, bridge timbers, ladders, millwork, greenhouse benches, and similar items. Textiles: industrial duck, tents, truck and boat covers, rope, and other non-rubber fabrics.
Questionable use directions	none except wording " <i>similar items</i> " may be too general and use on textiles - should also be clearly specified for exterior use.
PPE	(Recommendation: add hand and eye protection)

Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)

Copper Green Wood Preservative (Green's Products)

EPA No.	66591-1
Acceptable use directions	trellises, greenhouse benches, sills, planter boxes, fence posts, lawn furniture and decks.
Questionable use directions	<u>Window sills, foundations, subflooring. For wherever wood meets soil or water</u> (Acceptable with clarification to use on exterior only)
PPE	(Recommendation: add hand and eye protection)

Coppernate 250 Wood Preservative (Green's Products)

EPA No.	66591-5
Acceptable use directions	planter boxes, fence posts, docks, lawn furniture, and decks.
Questionable use directions	<u>"Recommended for use on exterior wood only." Foundation, sills, subflooring, boats. For use wherever wood meets soil or water.</u> (delete recommended and clarify exterior use only to foundations, sills, etc.)
PPE	(Recommendation: add hand and eye protection)

Wolmanized End Cut Solution (Hickson Corporation)

EPA No.	1022-518-62190
Acceptable use directions	For coating of freshly sawn ends of pressure-treated Outdoor Wood (trade-named wood).
Questionable use directions	none
PPE	(Recommendation: add hand protection)

Printers Proof Perm-E8 8% (ISK Biotech)

EPA No.	1022-528-50534
Acceptable use directions	Cellulosic textiles and cordage products such as tents, awnings, tarpaulins, canvas products, ropes, nets, burlap for wrapping roots systems,. Not for use in treating textiles intended for uses resulting in repeated skin contact or food or feed. Wood products such as lumber, posts, poles, siding, furring strips, piers, docks, boxes, porches, fence pickets and rails, arbors, trellises, beverage cases, landscape timbers, wooden seeding trays, plant and flower boxes.
Questionable use directions	<u>etc., such as, roof shakes and shingles, steps, subflooring, boats.</u> (Acceptable with clarification to use on exterior only and specific application rate directions for roof shakes and shingles).
PPE	(Recommendation: add eye and hand protection)

**Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)**

Cunapsol-1 LV (Two labels for the same product) (ISK Biotech)

EPA No.	1022-518-50534
Acceptable use directions	First label: Brush-on preservative especially formulated for the coating of freshly sawn ends of pressure-treated Outdoor Wood (a trade-named wood). Second label: porches, siding, trellises, fence pickets and rails, arbors, and beverage cases. Also fence posts, poles, decks.
Questionable use directions	<u>Second label: Windows, window frames, doors, stairs, steps, sub-flooring, interior trim, wall paneling, furniture, furring strips, flooring, foundation sills, boats, shingles, and all wood exposed to moisture or weather.</u> (Acceptable with clarification to use on exterior only and deletion of obvious indoor uses).
PPE	(Recommendation: add hand protection)

Cunapsol-5 (ISK Biotech)

EPA No.	1022-522-50534
Acceptable uses directions	porches, trellises, fence pickets, and rails, furring strips, arbors, and beverage cases. May also be used for fence posts, poles, decks.
Questionable use directions	<u>Windows, window frames, doors, stairs, porches, siding, shingles, steps, sub-flooring, interior trim, wall paneling, furniture, flooring.</u> "Wood rot protection of interior wood is only needed on wood which is subject to frequent or prolonged wetting (e.g., condensation, rain seepage). <u>foundation sills, boats and all wood exposed to moisture or weather.</u> (Acceptable with clarification to use on exterior only, deletion of obvious indoor uses, and application rate directions for application to shingles).
PPE	(Recommendation: add hand protection)

CuRap 20 Wood Preservative (ISK Biotech)

EPA No.	1022-536-50534
Acceptable uses directions	Remedial treatment for utility poles and a primary or remedial treatment for wooden structures susceptible to attack by decay. Utility poles, piling, posts, and other wooden structures standing in ground. headers, bridge members, and readzed railroad tie surfaces.
Questionable use directions	<u>sills, joists and other subfloor members, boats.</u> (Acceptable with clarification to use on exterior only).
PPE	(Recommendation: add eye protection - Category 1 eye hazard)

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Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)

Jasco Termin-8 Wood Preservative, and Green (2 labels) (Jasco Chemical Corp)

EPA No.	7424-1-AA
Acceptable use directions	First label: (1 quart container) For fence posts or other wood to be used in contact with the ground. Second label: (Jasco Termin-8 Wood Preservative Green - 1 gallon container): posts, fencing, patio furniture. This label also includes the same wording about fence posts or other wood to be used in contact with the ground.
Questionable use directions	<u>First label (1 quart container): All newly exposed surfaces resulting from cutting, sanding or boring of treated wood.</u> <u>Second label (1 gallon container): boats, doors, windows, frames, shingles, shakes, stairs, sills, porches, flooring, plywood, pressure treated wood.</u> (Acceptable with clarification to use on exterior only, deletion of obvious indoor uses, and application rate directions for application to shingles and shakes).
Application rate	One quart container label: <u>approximately 150 to 200 square feet per gallon by spray or brush.</u> One gallon label: <u>Coverage: 100 - 300 square feet.</u> (clarify varying directions for same product)
PPE	One quart container label: "No protective clothing is necessary unless the user is allergic to petroleum distillates." One gallon container: No PPE mentioned. (Recommendation: add hand and eye protection)
Comments	Appears to be same product in either a 1 quart or 1 gallon container. However, directions for use, application rate, and PPE differ. (Clarification is needed).

Klean-Strip Creo-Nap Exterior Wood Preservative (Klean-Strip Div)

EPA No.	1022-518-4091
Acceptable use directions	trellises, steps, fence pickets and rails, arbors, and beverage cases. Exterior fence posts, poles, decks, greenhouses, nursery flats.
Questionable use directions	<u>"Recommended for exterior." windows, window frames, doors, stairs, porches, siding, shingles, foundation sills, boats, and all exterior wood exposed to moisture or weather. etc.</u> (Acceptable with deletion of "recommended" to restrict to use on exterior only, deletion of obvious indoor uses, and application rate directions for application to shingles and shakes).
PPE	(Recommendation: add hand protection)

**Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)**

Klean-Strip Coppo-W Exterior Wood Preservative (Klean-Strip Div)

EPA No.	1022-518-4091
Acceptable use directions	Trellises, steps, fence pickets and rails, arbors, and beverage cases. Exterior fence posts, poles, decks, greenhouses, nursery flats,
Questionable use directions	<u>"Recommended for exterior," windows, window frames, doors, stairs, porches, siding, shingles, foundation sills, boats, and all exterior wood exposed to moisture or weather, etc.</u> (Acceptable with deletion of "recommended" to restrict to use on exterior only, deletion of obvious indoor uses, and application rate directions for application to shingles and shakes).
PPE	(Recommendation: add hand protection)

Kop-Coat Copper Treat 00 Ready to Use (Kop-Coat, Inc)

EPA No.	60061-16
Acceptable use directions	"industrial use only" wood preservation: fence posts, poles, timbers and heavy wooden members. Textile treatment: burlap, duck, rope, nets, textiles.
Questionable use directions	none
PPE	Use of goggles and protective clothing (rubber gloves) is <u>recommended</u> when brushing or dipping, and use of an approved respirator when spraying. (Recommendation: delete "recommended" and require use of appropriate PPE)

Kop-Coat Copper Treat 00 Concentrate (Kop-Coat, Inc)

EPA No.	60061-26
Acceptable use directions	"industrial use only" Used for formulating other products or as a wood preservation: fence posts, poles, timbers and heavy wooden members. Textile treatment: burlap, duck, rope, nets, textiles.
Questionable use directions	none
PPE	(Recommendation: add eye protection)

Mgard S120 (Mooney Chemical, Inc)

EPA No.	9630-5
Acceptable use directions	"for use only in manufacturing other fungicides" 
Questionable use directions	none 
PPE	(Recommendation: add eye and hand protection)

**Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)**

Mgard S122 (Mooney Chemical, Inc)

EPA No.	9630-5-2A
Acceptable use directions	"for use only in manufacturing other fungicides"
Questionable use directions	none
PPE	(Recommendation: add eye and hand protection)

Mgard W110 Wood Preservative (Mooney Chemical, Inc)

EPA No.	9630-8
Acceptable use directions	"for use only in manufacturing other fungicides"
Questionable use directions	none
PPE	(Recommendation: add hand protection)

Mgard W510 Wood Preservative (Mooney Chemical, Inc)

EPA No.	9630-11
Acceptable use directions	Landscape logs, siding, fences, greenhouse wood and stakes, non-apparel canvas (e.g., tents, tarpaulin, sails), mine timber, and lumber for ammunition boxes.
Questionable use directions	<i>planking, wood block flooring, millwork, plywood, shingles structural logs, foundation timbers, baskets, and structural timbers</i> . (Acceptable with restriction to use on exterior only and application rate directions for application to shingles).
PPE	(Recommendation: add hand protection)

Mgard S520 (Mooney Chemical, Inc)

EPA No.	9630-12-AA
Acceptable use directions	Poles, large posts, and timbers
Questionable use directions	none specified but label vague
PPE	(Recommendation: add eye and hand protection)

Mgard S540 (Mooney Chemical, Inc)

EPA No.	9630-15
Acceptable use directions	Wood surfaces in contact with soil, concrete or water including, docks, fence posts.
Questionable use directions	<i>"... is only intended for use on exterior wood." foundations, sills, boats</i> (Acceptable with deletion of "intended" to restrict to use on exterior only).
PPE	(Recommendation: add eye and hand protection)

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**Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)**

Mgard G540 Pole-Treat Wood Preservative (Mooney Chemical, Inc)

EPA No.	9630-15- 2B
Acceptable use directions	Wood surfaces in contact with moisture, soil, docks, fence posts. Standing poles, piling cut-offs, yard poles.
Questionable use directions	<u>"... is only intended for use on exterior wood." any natural wood surface, sills, boats</u> (Acceptable with deletion of "intended" to restrict to use on exterior only).
PPE	(Recommendation: add eye and hand protection)

Mgard W540 Wood Preservative (Mooney Chemical, Inc)

EPA No.	9630-17
Acceptable use directions	Wood surfaces in contact with soil, concrete or water including, docks, fence posts.
Questionable use directions	<u>"... is only intended for use on exterior wood." foundations, sills, boats.</u> (Acceptable with deletion of "intended" to restrict to use on exterior only).
PPE	(Recommendation: add eye and hand protection)

Osmose Cop-R-Nap Wood Preservative (Osmose Wood Preserving Co)

EPA No.	9630-15-3008
Acceptable use directions	Wood surfaces in contact with soil, concrete or water. Fence posts, poles and foundation timbers and heavy wooden members.
Questionable use directions	<u>"... is only intended for use on exterior wood." "provides protection against moisture, rot and mildew on any natural wood surface"</u> (Acceptable with deletion of "intended" to restrict to use on exterior only).
PPE	(Recommendation: add eye and hand protection)

Osmose Green Endcoat Wood Preservative (Osmose Wood Preserving)

EPA No.	9630-15-3008
Acceptable use directions	Wood surfaces in contact with soil, concrete or water. Saw cuts and drilled holes on permanent wood foundations, decks, fences,
Questionable use directions	<u>"... is only intended for use on exterior wood." projects. For residential and commercial construction, hards and garden use, recreation and park use, and all out door wood projects.</u> (Acceptable with deletion of "intended" to restrict to use on exterior only).
PPE	(Recommendation: add eye and hand protection)

**Attachment to January 19, 1996 memorandum
(list of WH&S concerns with use directions of copper naphthanate products)**

Osmose Cop-R-Nap Preservative Paste (Osmose Wood Preserving Co)

EPA No.	9630-15-3008
Acceptable use directions	In place preservation of poles, pilings and other timber members. Standing poles, yard poles.
Questionable use directions	<u>"... will preserve and protect wood in decay vulnerable areas such as, but not limited to, soil water concrete and moisture prone areas."</u> (Acceptable with restriction to use on exterior only).
PPE	(Recommendation: add eye and hand protection)

Osmose Green Endcoat WB Pressure Treated Wood (Osmose Preserving)

EPA No.	9630-17-3008
Acceptable use directions	for wood surfaces in contact with soil, concrete or water, including docks,, and fence posts.
Questionable use directions	<u>"only intended for exterior wood" ". protection against moisture, rot and mildew on any natural wood surface. foundations, sills, boats.</u> (Acceptable with deletion of "intended" to restrict to use on exterior only).
PPE	(Recommendation: add eye and hand protection)

Osmose Cop-R-Plastic Wood Preserving Compound (Osmose Preserving)

EPA No.	3008-55-AA
Acceptable use directions	ground-line treatment of standing poles, piling and other timber members.
Questionable use directions	none
PPE	(Recommendation: add hand protection)

Copper Naphthenate - 2.2 (Romeo Packing)

EPA No.	7473-1-AA-11154
Acceptable use directions	Control of molds and fungi on cellulosic materials, jute, cotton and linen fabrics, rope and twine. fence posts, and heavy timbers.
Questionable use directions	<u>For wood preconstruction.</u> (Acceptable with restriction of exterior uses only - preconstruction wood treatment directions should be very carefully detailed to avoid "building in" a residual problem)
PPE	(Recommendation: add eye and hand protection)

BEGIN FRONT PANEL

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 22 1993

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
registered, for the pesticide
classified under EPA Reg. No.

32273-8

BEHR (logo)

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EXTERIOR • GREEN • WATER REPELLENT

DOCK & FENCE POST
PRESERVATIVE

FOR WOOD IN CONTACT WITH SOIL & WATER
PROTECTS AGAINST WOOD ROT, TERMITE DAMAGE, MILDEW
AND MOISTURE

(pictures of dock and fencepost)

FOR WOOD BELOW GROUND OR UNDER WATER

KEEP OUT OF REACH OF CHILDREN
WARNING! COMBUSTIBLE LIQUID AND VAPOR. HARMFUL
OR FATAL IF SWALLOWED OR ABSORBED THROUGH SKIN. See
other precautionary statements on back panel.

EPA Reg. No. 32273-1
EPA Est. No. 32273-CA-1

ACTIVE INGREDIENT:

*Copper Naphthenate 19.25%

INERT INGREDIENTS: 80.75%

TOTAL 100.00%

(* 2% copper as metallic)

Contains: Petroleum Distillates & Copper Naphthenate

PRODUCT WEIGHT PER GALLON - 6.8 LBS.

NET CONTENTS:

LIMITED WARRANTY: BEHR PROCESS CORPORATION MAKES NO WARRANTY,
EXPRESS OR IMPLIED, CONCERNING THE USE OF THIS PRODUCT OTHER THAN
INDICATED ON THE LABEL. BUYER ASSUMES ALL RISK OF USE AND/OR HANDLING
OF THIS MATERIAL WHEN SUCH USE AND/OR HANDLING IS CONTRARY TO LABEL
INSTRUCTIONS. IF THIS PRODUCT IS DEFECTIVE, REPLACEMENT MATERIAL WILL

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BE FURNISHED FREE OF CHARGE OR A REFUND OF THE MATERIAL COST AT MANUFACTURER'S OPTION. LABOR COSTS ARE NOT COVERED BY THIS WARRANTY. RESPONSIBILITY FOR CLAIMS OF ANY KIND IS STRICTLY LIMITED TO THE PURCHASE PRICE OF THIS MATERIAL.

INSTRUCTIONS

IMPORTANT: DO NOT OPEN CAN WITHOUT READING ALL INSTRUCTIONS.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

WARNING! HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. CAUSES SKIN IRRITATION. CONTAINS: PETROLEUM DISTILLATES & COPPER NAPHTHENATE. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid breathing vapor or spray mist. Use in a well ventilated area.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Apply this product only as specified on the label.

PHYSICAL OR CHEMICAL HAZARDS

COMBUSTIBLE LIQUID AND VAPOR. Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Drink promptly large quantities of milk, egg white, and gelatin mixture, or, if these are not available, large quantities of water. Avoid alcohol. Do not induce vomiting as it may cause respiratory pneumonia. **CALL PHYSICIAN IMMEDIATELY.**

IF IN EYES: Flush with plenty of water and get immediate medical attention.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DESCRIPTION: BEHR NO. 90 DOCK & FENCEPOST PRESERVATIVE, FOR WOOD SURFACES IN CONTACT WITH SOIL, CONCRETE or WATER, INCLUDING FOUNDATIONS-SILLS-DOCKS-BOATS-FENCE POSTS.

NO. 90 DOCK & FENCEPOST PRESERVATIVE is specifically designed for marine or below ground use. Do not apply to food or feed contact surfaces. Do not contaminate drinking water with treated articles.

NO. 90 DOCK & FENCEPOST PRESERVATIVE provides protection against moisture, rot and mildew on any natural wood surface. This copper naphthenate wood preservative and insecticide will preserve, protect and seal wood surfaces that will be in contact with soil, water or concrete.

The copper fungicide gives a green cast to Behr NO. 90 DOCK & FENCEPOST PRESERVATIVE. This product is not intended for use as a stain.

PREPARATION: Wood should be clean, dry, well seasoned and free of bark.

APPLICATION: NO. 90 DOCK & FENCEPOST PRESERVATIVE should be applied liberally by brush, roller, spray or dipping in a container.

Dipping-wood should be dipped 3 to 30 minutes per inch of thickness. Fence posts, poles, foundations, timbers, and heavy wooden members should be immersed in the product for 12 to 48 hours.

IMPORTANT! DO NOT THIN PRODUCT.

Materials supplied at proper application consistency. Use (1) coat on materials to be finished with paint or stain.

If no finish is to be used, apply two (2) liberal coats within the hour.

Thoroughly cover ends. The more preservative absorbed by the wood, the longer and more effective the protection.

NOTE TO USER: DO NOT APPLY OVER PAINTED OR VARNISHED SURFACES. DO NOT APPLY OVER BARK.

COVERAGE: 100-300 square feet - Depending on porosity of wood and method of application.

DRYING TIME: Allow 12-16 hours before painting or staining over NO. 90, longer if high humidity and/or low temperatures prevail.

CLEAN-UP: Use mineral spirits or turpentine. Dried material requires paint remover.

STORAGE AND DISPOSAL:

Store at temperatures between 40° F and 100° F. If the product has been spilled or is leaking, remove the source of the spill or leak. Recover free liquid.

Spread absorbant, then pick up and place in containers. Then, where applicable, wash area with detergent and water. Store product in the original container only. Keep container closed when not in use.

Do not use empty container. Wrap container and place into trash collection.

BEHR PROCESS CORPORATION, SANTA ANA, CA 92704

END FRONT PANEL

ACCEPTED

July 27 1983

Under the Federal Insecticide, Fungicide, and Rodenticide Act, Chapmans, Inc. is hereby registered, for the sale and use of CUNAPSOL-1, EPA Reg. No. 1022-TN-1

NET CONTENTS

CUNAPSOL-1

WOOD PRESERVATIVE *Ready-to-Use*



INGREDIENTS

- ACTIVE INGREDIENT:**
 Copper naphthenate 9.08 %*
INERT INGREDIENTS 90.92 %
 * Equivalent to 1% metallic copper

Cunapsol-1 weighs approximately 8.5 lbs. per gallon
 .. Volatile Organic Compounds < 360 gm./liter
 VOS (excluding water) < 0.35 kg./liter

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER
 Causes irreversible eye damage. Do not get in eyes, on skin or on clothing. Wear goggles or face shield.
 Harmful if inhaled. Avoid breathing spray mist.
 Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.
ENVIRONMENTAL HAZARDS
 This product is toxic to fish. Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or by disposal of wastes
PHYSICAL AND CHEMICAL HAZARDS
 Do not use or store near heat or open flame.

STORAGE AND DISPOSAL
PROHIBITIONS: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.
STORAGE: Store in a secure, well-ventilated area protected from extreme temperatures. Do not transfer to unmarked containers. Keep container closed when not in use.
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures by state and local authorities.
GENERAL: Consult Federal, State or local disposal authorities for approved alternative procedures.

KEEP OUT OF REACH OF CHILDREN
DANGER
STATEMENT OF PRACTICAL TREATMENT
 If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes.
 If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.
SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

DIRECTIONS FOR USE
 It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Cunapsol-1 requires no dilution before use. Use as received, following label directions. It is intended for wood products that usually require painting or stenciling such as millwork and the like or in special situations to treat lumber for long storage in the open or in ground contact by simple non-pressure method.
 The best results will be obtained if wood to be treated is immersed for 3 minutes or longer. If dipping is not possible, 2 liberal brush or spray applications should be applied. Allow at least 1 hour between applications. Make certain all areas are fully treated to get the maximum benefits. Allow 24 hours or longer after application of the preservative prior to painting.

Ground contact: Seasoned or green wood may be treated. Make certain the wood is free of bark, then immerse in Cunapsol-1 for 12 to 48 hours or until the sapwood is completely penetrated.
 Water repellents may be admitted with Cunapsol-1 to improve dimensional stability of the treated wood. Colorants may be admitted for aesthetics and additional UV protection. This product is compatible and may be colored by the universal machine colorants employed to color oil or water based paints. Note that colorants weather differently, and that color development varies with species, grain and wood undertone.

RECOMMENDED FOR
 Windows, window frames, doors, stairs, porches, siding, shingles, trellises, steps, sub-flooring, interior trim, wall paneling, furniture, fence pickets, and rails, furring strips, arbors, flooring and beverage cases. Powder post beetles which invade furniture, flooring and structural lumber are killed by application of this preservative. These insects will not attack the treated wood. Wood rot protection of interior use wood is only needed on wood which is subject to frequent or prolonged wetting (e.g. condensation, rain seepage). Cunapsol-1 may also be used on fence posts, poles, foundation sills, decks, boats and all wood exposed to moisture or weather. Due to its very low phytotoxicity, Cunapsol-1 can be used to treat wood for greenhouses, nursery flats, etc.
 In addition to preventing decay, blue stain, and insect attack on wood, Cunapsol-1 controls warping, swelling, shrinking and end checking caused by changes in moisture content of lumber and plywood products.
 Wood to be protected against subterranean termites should be treated before use in construction. Termites will not attack wood treated with Cunapsol-1 Wood Preservative.
 Cunapsol-1 may be used where livestock and dairy animals may come in contact with the treated wood. Wood treated with Cunapsol-1 should not be used where it may come in contact with food, feed or potable water. See Technical Bulletins for additional uses.

WARRANTY STATEMENT AND DISCLAIMER
 Proper application is critical to the effectiveness of the product; however, when applied and used according to this label CUNAPSOL-1 is capable of protecting wood for uses described. The actual life of the treatment will be affected by the condition of the wood when treated, the species of wood, the type of exposure, and the previous and subsequent treatments.
READ THE LABEL THOROUGHLY AND COMPLY WITH ALL DIRECTIONS AND WARNINGS GIVEN, AND USE COMMON SENSE IN HANDLING.
 CHAPMAN MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OTHER THAN AS SET FORTH ON THIS LABEL AND CHAPMAN DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY NOT SPECIFICALLY SET FORTH ON THIS LABEL. CHAPMAN SHALL NOT BE RESPONSIBLE FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE OR OTHER TYPE OF LOSS RESULTING FROM FAILURE TO FOLLOW DIRECTIONS FOR USE, WARNINGS AND PRECAUTIONARY LANGUAGE GIVEN ON THIS LABEL. CHAPMAN SHALL NOT BE RESPONSIBLE FOR DAMAGE TO PROPERTY BEYOND THE PURCHASE PRICE OF THIS PRODUCT; HOWEVER, SOME STATES DO NOT ALLOW THE INCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION MAY NOT APPLY TO YOU.

EPA, Est. No. 1022-TN-1
 EPA Reg. No. 1022-518

DIRECTIONS FOR USE
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

TENINO
FUNGICIDE
PLUS

WATER REPELLENT
(Meets Federal Specification TT-W-572B)

TENINO WOOD PRESERVATIVE

10-9-0 Green. This is intended for use only on exterior wood surfaces as a wood preservative treatment. 10-9-0 Green provides protection against moisture, fungal rot, termites damage and mildew on any natural wood surface. Do not contaminate potable water with treated articles. Do not apply to livestock food or feed contact surfaces. 10-9-0 is a safe wood preservative for use in greenhouses and other plant-growing structures. This copper naphthenate wood preservative and insecticide will preserve, protect and seal wood surfaces that will be in contact with soil, water or concrete. Depending on climatic conditions, species of wood to which applied, moisture and humidity, treatment extends service life several years. Retreat when possible every 5 to 7 years for sound maintenance.

PREPARATION AND APPLICATION

Wood should be clean, dry, well seasoned and free of bark. 10-9-0 Green should be applied liberally by brush, roller or spray. DO NOT THIN. Material is supplied at proper application consistency. If no finish is to be used, apply two liberal coats within the hour. Thoroughly cover ends, joints, cracks, and any cuts or holes made after the initial treatment. Clean equipment with mineral spirits for quick cleanup. Coverage averages 150-250 square feet per gallon. Best results when applied at temperatures between 40° F. and 100° F.

SOLD BY: Tenino Wood Preservatives, Inc.
7000 Highland Parkway SW
Seattle, WA 98106
(206)762-4332

TENINO

10-9-0 Green

WOOD PRESERVATIVE

EPA Reg. No. 9630-15-54471
EPA Est. No. 9630-PA-01,

WOOD EXTERIOR SURFACES
INCLUDING POLE TOP, BORE HOLE,
POSTS, BEAMS, LUMBER
AND STRUCTURAL WOOD.

KEEP OUT OF REACH OF CHILDREN

WARNING

COMBUSTIBLE

HARMFUL IF SWALLOWED

See other precautionary statements on back panel.

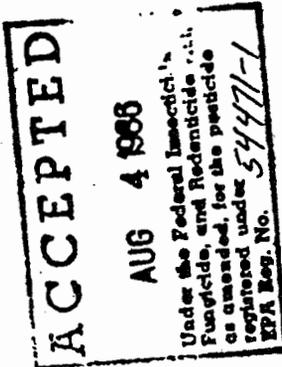
ACTIVE INGREDIENT:

Copper naphthenate (2% copper as metal) 19.25%
INERT INGREDIENTS..... 80.25%
TOTAL..... 100.00%

*Green color is from the fungicide and will fade.

ONE U.S. PINT

Weight per gallon: 7.4 lbs.



PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CONTAINS PETROLEUM DISTILLATE AND COPPER NAPHTHENATE

FIRST AID PROCEDURE

Harmful if swallowed. May be absorbed through the skin. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Avoid breathing vapor or spray mist. Use in well ventilated area.

IF SWALLOWED: Do not induce vomiting. CALL PHYSICIAN IMMEDIATELY.

IF INHALED: Remove to fresh air.

IF IN EYES: Flush with plenty of water and get immediate medical attention.

IF CLOTHING CONTAMINATED: Remove and wash thoroughly before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning equipment or disposal of wastes. Apply this product only as specified on the label.

PHYSICAL OR CHEMICAL HAZARDS
Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

STORAGE AND DISPOSAL
Product will not freeze. Store at temperatures between 40° and 100°F. If product has been spilled, spread absorbant, pick up, and place in container. Store product in original container.
CONTAINER DISPOSAL: Do not use empty container. Wrap container and put into trash collection.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CONTAINS PETROLEUM DISTILLATE
AND COPPER NAPHTHENEATE**

FIRST AID PROCEDURE

Harmful if swallowed. May be absorbed through the skin. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Avoid breathing vapor or spray mist. Use in well ventilated area.
IF SWALLOWED: Do not induce vomiting. CALL PHYSICIAN IMMEDIATELY.
IF INHALED: Remove to fresh air.
IF IN EYES: Flush with plenty of water and get immediate medical attention.
IF CLOTHING CONTAMINATED: Remove and wash thoroughly before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning equipment or disposal of wastes. Apply this product only as specified on the label.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

STORAGE AND DISPOSAL

STORAGE: Product will not freeze. Store at temperatures between 40° and 100°F. If product has been spilled, spread absorbant, pick up and place in container. Store product in original container.
CONTAINER DISPOSAL: Do not use empty container. Wrap container and put into trash collection.

TENINO

10-9-0 Green F.O.*
WOOD PRESERVATIVE

EPA Reg. No. 9830-15-54471
EPA Est. No. 9830-PA-01

**WOOD EXTERIOR SURFACES
INCLUDING POLE TOP, BORE HOLES,
POSTS, BEAMS, LUMBER
AND STRUCTURAL WOOD**

**KEEP OUT OF REACH OF CHILDREN
WARNING
COMBUSTIBLE**
HARMFUL IF SWALLOWED
See other precautionary statements
on back panel.

ACTIVE INGREDIENT:

Copper naphthenate (2% copper as metal) 18.25%
INERT INGREDIENTS.....80.25%
TOTAL..... 100.00%

*Green color is from the fungicide and will fade.
ONE U.S. PINT

Weight per gallon: 7.4 lbs.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

FUNGICIDE
PLUS
WATER REPELLENT

(Meets Federal Specification TT-W-572B)

TENINO WOOD PRESERVATIVE

10-9-0 Green F.O. is intended for use only on exterior wood surfaces as a wood preservative treatment. 10-9-0 Green F.O. provides protection against moisture, fungal rot, termite damage and mildew on any natural wood surface. Do not contaminate potable water with treated articles. Do not apply to livestock food or feed contact surfaces. 10-9-0 is a safe wood preservative for use in greenhouses and other plant-growing structures. This copper naphthenate wood preservative and insecticide will preserve, protect and seal wood surfaces that will be in contact with soil, water or concrete. Depending on climatic conditions, species of wood to which applied, moisture and humidity, treatment extends service life several years. Retreat when possible every 5 to 7 years for sound maintenance.

PREPARATION AND APPLICATION

Wood should be clean, dry, well seasoned and free of bark. 10-9-0 Green F.O. should be applied liberally by brush, roller or spray. DO NOT THIN. Material is supplied at proper application consistency. If no finish is to be used, apply two liberal coats within the hour. Thoroughly cover ends, joints, cracks, and any cuts or holes made after the initial treatment. Clean equipment with mineral spirits for quick cleanup. Coverage averages 150-250 square feet per gallon. Best results when applied at temperatures between 40° F. and 100° F.

SOLD BY: Tenino Wood Preservatives, Inc.
7000 Highland Parkway SW
Seattle, WA 98108
(206)762-4332

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HAZARDS TO HUMANS
AND DOMESTIC ANIMALS

CONTAINS PETROLEUM DISTILLATE
AND COPPER NAPHTHENATE

FIRST AID PROCEDURE

Harmful if swallowed. May be absorbed through skin. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Avoid breathing vapor or spray mist. Use in well ventilated area.

IF SWALLOWED: Do not induce vomiting. CALL PHYSICIAN IMMEDIATELY.

IF INHALED: Remove to fresh air.

IF IN EYES: Flush with plenty of water and get immediate medical attention.

IF CLOTHING CONTAMINATED: Remove and wash thoroughly before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning equipment or disposal wastes. Apply this product only as specified on the label.

PHYSICAL OR CHEMICAL HAZARDS
Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation.

STORAGE AND DISPOSAL

Product will not freeze. Store at temperatures between 0°F. and 120°F. If product has been spilled, spread absorbent, pick up and place in containers. DO NOT STORE opened packages.

DISPOSAL: Wrap any cut portion of CUNAP WRAP™ and put into trash collection.

CUNAP WRAP™

Patent No. 4, 731, 267

WOOD PRESERVATIVE

EPA Reg. No. 54471-6
EPA Est. No. 54471-WA-01

**WOOD EXTERIOR SURFACE
WRAP FOR ABOVE OR BELOW
GROUND TREATMENT FOR
POLES, POSTS AND PILINGS**

**KEEP OUT OF REACH
OF CHILDREN**

**WARNING
COMBUSTIBLE**

HARMFUL IF SWALLOWED
See other precautionary statements
on side panels

**CONTAINS INGREDIENTS LISTED
BELOW SATURATED IN SYNTHETIC
ABSORBENT CLOTH ENCAPSULATED
IN CHEMICAL AND VAPOR RESIS-
TANT CONTAINERS WITH AN ADDI-
TIONAL CHEMICAL RESISTANT
VAPOR BARRIER CROSS LAMINATED
BACKING.**

ACTIVE INGREDIENT:

Copper naphthenate
(2% copper as metal) 19.25%
INERT INGREDIENTS 80.75%
TOTAL 100.00%

MANUFACTURED BY:
Tenino Wood Preservatives, Inc.
5701 1st Avenue S.
Seattle, WA 98108-2406
(206) 762-4332

DIRECTIONS FOR USE:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

FUNGICIDE PLUS WATER REPELLENT
(Meets Federal Specification TT-W-572B)

CUNAP WRAP™ containing copper naphthenate is intended for use only on poles, posts and pilings as a wood preservative treatment. CUNAP WRAP™ containing copper naphthenate provides protection against moisture, fungal rot and termite damage. This copper naphthenate wood preservative and insecticide will preserve, protect and seal wood surfaces that will be in contact with soil or concrete. Depending upon climatic conditions, species of wood to which applied, moisture and humidity, treatment extends service life several years.

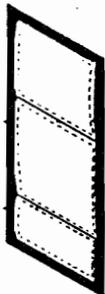
PREPARATION AND APPLICATION

Wood should be clean, dry, well seasoned and free of bark. When using CUNAP WRAP™ as a groundline treatment, excavate around wood to allow top of wrap to extend 2" above groundline.

Protect eyes and skin from contact.

Wire brush area 3" above groundline and approximately 20" below groundline removing dirt and decayed material.

Lift CUNAP WRAP™ from carton and lay on ground. Unfold, exposing open front of plastic bags on all four edges (as shown by dotted lines) exposing saturated pads. Avoid cutting through to backing.



Wrap proper length CUNAP WRAP™ around the pole with saturated pad against the pole and staple or tack firmly in place. Staple short side of the backing first and overwrap with longer edge. Allow wrap to extend 2" above groundline. Backfill excavation, tamping firmly.

7-88 WRAP-6.1.

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SIDE MASTER LABEL

BACK MASTER LABEL

No. 10 Green
Preservative

CUPRINOL



**WOOD
PRESERVATIVE**

Green No. 10 for wood in contact with soil or water

by the **CUPRINOL** Group

**CONTRACTOR
SERIES**



ACCEPTED

MAR 2 1977

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
registered under the pesticide
regulation under
EPA Reg. No. 577-541

CUPRINOL

USE ON WOOD IN CONTACT WITH SOIL OR WATER.

This is the Wood Preservative which is world famous among boat owners. It prolongs the life of all wood by protecting against rot, termite damage, mildew, warping and swelling.

Cuprinol® Green No. 10 contains a powerful copper fungicide-insecticide and water repellents for three-way protection. This is important for wood used in contact with soil, water and concrete. Apply Cuprinol liberally to fence posts, poles, foundation sills, docks, boats and all wood exposed to moisture or weather. Wood should be free of bark, dry and well seasoned. Exceeds Federal Specification TT-W-00572b.

The green of Cuprinol No. 10 is from the copper fungicide and is not a lasting stain. Color will fade within a matter of months, and may bleed through lighter colors of stains and paints. Use Cuprinol® Clear Wood Preservative for wood above ground and under paint.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **BEFORE USE, THOROUGHLY MIX CONTENTS OF CAN. DO NOT THIN.** Apply by brush, spray or dip to clean, dry, bare wood. Use one thin coat under finishes. When no finish is to be used, two generous coats applied within 1 hour, or a 3-minute dip, is recommended. **THOROUGHLY** cover ends. The more preservative absorbed by the wood, the longer and more effective the protection. Cuprinol Wood Preservative dries to the touch rapidly. Clean excess from surface with mineral spirits and let dry approximately 24 hours before applying dark paint or finish.

Clean Cuprinol Green No. 10 from brushes, etc., with mineral spirits or turpentine. Not recommended to be overcoated with latex (water base) paint or clear finishes until thoroughly cured (6-12 months).

COVERAGE: 300 sq. ft per gallon average, depending on wood porosity and surface roughness.

LIMITED WARRANTY

Cuprinol Group will replace this product if it is shown to be defective within one year of the date of purchase. Claims must be sent within that warranty period, together with proof of purchase, to: Cuprinol Group, 14 Midland, 101 Prospect Ave., Cleveland, OH 44115.

This warranty does not apply if the product is not used as directed. **THE DURATION OF ANY IMPLIED WARRANTIES IS LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. CUPRINOL'S LIABILITY UNDER ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, IS LIMITED SOLELY TO REPLACEMENT OF THE PRODUCT AND DOES NOT INCLUDE LABOR OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.** Some states do not allow limitations on how long an implied warranty lasts or exclusions or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

For consumer information, call Cuprinol®, Customer Service 1-800-424-5837

SATISFACTION GUARANTEED

When used according to label directions, if this product fails to perform, Cuprinol will furnish an equivalent amount of new product at no cost or will refund the purchase price upon proof of purchase. This guarantee does not include labor or cost of labor for the application of product.

Cuprinol Group

101 Prospect Avenue
Cleveland, Ohio 44115

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IDE MASTER LABEL

No. 10 Green
Preservative

FRONT
MASTER LABEL

CUPRINOL



WOOD PRESERVATIVE

Green No. 10 for wood in contact with soil or water.

BELOW
GROUND
USE

by the CUPRINOL Group

CONTRACTOR SERIES



Strong enough to protect wood below ground or under water.

ACTIVE INGREDIENTS
Copper Naphthenate 22.3%
(Equivalent to metallic copper)
INERT INGREDIENTS 77.7%
TOTAL 100.0%
Contains petroleum distillates
EPA Reg. No. 577-541, EPA Est. No. 577-GA-1, 577-IL-1, 577-TX-1, 577-KY-1, 577-NC-1, 577-OR-1, 577-MD-1
1 Gallon
3.785 Liters

*NOT A STAIN COLORIS FROM FUMIGATE ONLY AND NOT COLORFAST

PRECAUTIONARY STATEMENTS:
HAZARDS TO HUMANS AND DOMESTIC ANIMALS.
IRRITATION:
Contains petroleum distillates. Harmful if swallowed. If swallowed, do not induce vomiting. Call physician immediately. May be absorbed through skin. Causes skin irritation. Avoid breathing vapor or spray mist. Use in well-ventilated areas. Avoid contact with skin, eyes or clothing. In case of contact, immediately remove contaminated clothing and wash skin with soap and water. For eyes, flush with plenty of water and get medical attention. Wash clothing before reuse. KEEP OUT OF REACH OF CHILDREN.
ENVIRONMENTAL HAZARDS:
This product is toxic to fish. For terrestrial uses, do not apply directly to soil, or to areas where surface water is present or to intertidal areas above the mean high water mark. Do not contaminate water by disposal of spilled wash waters.
PHYSICAL OR CHEMICAL HAZARDS:
FLAMMABLE LIQUID. DO NOT USE, POUR, SPILL OR STORE NEAR HEAT OR OPEN FLAME.

STORAGE & DISPOSAL:
STORAGE:
Seal container tightly and store upright to prevent leakage. Do not contain near water, food or feed by storage or disposal. Do not use or store near open flame, heat, sparks or flames. Store in original container. Soak up spills with sand, dirt or synthetic absorbent and non-sparking tools.
WASTE DISPOSAL:
Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER DISPOSAL:
Recycle where available. Then offer for recycling or reconditioning, or incinerate and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Do not re-use original container.

The Cuprinol Promise
We promise that Cuprinol products will save you time and help protect and beautify wood.
We also promise that Cuprinol products will perform to your satisfaction or we'll cheerfully refund your money.
If you have any questions about Cuprinol products, where, how and when to use them, please call us at
1-800-424-5837

CAS No. Ingredient
64742-47-8 Mineral Spirits
64741-89-5 Paraffin Oil
1338-02-9 Copper Naphthenate
68131-47-5 Hydrocarbon Resins
8002-74-2 Paraffin Wax

VOC: Less than 350 gms/L - 2.92 lbs/gal
VOC: Less than 550 gms/L - 4.59 lbs/gal
NON-PHOTOCHEMICALLY REACTIVE
P010067

WARNING: KEEP OUT OF REACH OF CHILDREN

See side panels for additional Precautionary Statements

JUL 3 1995

Under the Federal Insecticide, Fungicide, and Rodenticide Act registered under EPA Reg. No. 66591-5

66591-5

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

HARMFUL OR FATAL IF SWALLOWED

Causes eye and skin irritation. Harmful if absorbed through skin. Do not get in eyes or skin or on clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Contaminated clothing should be removed and washed thoroughly before reusing. Use in well ventilated area.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Immediately flush with a large quantity of water and get medical attention. IF ON SKIN: Wash thoroughly with plenty of soap and water. Get medical attention if irritation persists. IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention. IF SWALLOWED: Do not induce vomiting. CALL A PHYSICIAN IMMEDIATELY.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present or to irrigation areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Apply this product only as specified on the label.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container when not in use.

STORAGE AND DISPOSAL

STORAGE: Store in a secure, well ventilated area, protected from extreme temperatures. If the product has been spilled or is leaking, remove the source of the spill or leak. Recover the liquid. Spread absorbent, then pick up and place in container. Then, where applicable, wash area with detergent and water. Store product in the original container only. Do not contaminate water, food or feed by storage or disposal. Keep container closed when not in use.

PESTICIDE DISPOSAL: Pesticides mixtures are toxic. Improper disposal of excess pesticides, spray mixture, or residue in a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.



COPPERNATE "250"

Wood Preservative

FOR USE WHEREVER WOOD MEETS WATER OR SOIL

HEAVY DUTY WATER-REPELLANT CONTROLS WARPING & SWELLING PREVENTS DETEIORATION CAUSED BY TERMITES - FUNGUS - ROT - DECAY MEETS FEDERAL SPECIFICATION TTM-572 TYPE II COMPOSITION "B" P.37

WARNING:

KEEP OUT OF REACH OF CHILDREN SEE BACK PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS

ACTIVE INGREDIENT:

Copper Naphthenate 20% Inert Ingredients 80%

COMBUSTIBLE: Contains Petroleum Distillates

*Copper as metallic, 2% Max. V.O.C. = 340 grams per liter

Seals Wood

GREEN'S PRODUCTS CO.

810 Market Ave.

Richmond, CA 94801-1325

EPA EST. NO. 066591CA-01 EPA REG. NO. 66591-5

CONTENTS: 5 GALLONS (18.95 Liters)

COVERAGE

Estimate 150 to 200 sq. ft. per gallon for brush coat or 5 to 10 gallons per 1000 board feet for dipping dimensional lumber.

RECOMMENDED FOR

Coppernate 250™ is an exceptionally effective, easy to use wood preservative for above ground, ground contact and below ground uses, e.g. foundation, sills, planter boxes, fence posts, subflooring, docks, boats, lawn furniture and decks. For use wherever wood meets soil or water. Should not be applied to food or feed contact surfaces.

RECOMMENDED FOR USE ON EXTERIOR WOOD ONLY.

In addition to preventing fungal rot and decay, and insect attack on natural wood surfaces, this preservative controls the warping, swelling, shrinking and end-checking caused by changes in moisture content of lumber and other wood products. Wood to be protected against subterranean termites should be treated before use in construction. Termites will not attack wood treated with Coppernate 250™ Wood Preservative.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Wood to be treated should be dry and well seasoned before treatment with Coppernate 250™. Lumber and wood products should be dip treated for at least 3 minutes per inch of thickness. If dipping is not possible, treat with several flowing coats by brush or spray. The more Coppernate 250™ the wood absorbs, the better it will be protected. Do not try to extend the coverage. Fence posts and heavy timbers should be free from bark, dry and well seasoned - and should be immersed in Coppernate 250™ for 12-48 hours to give effective control for wood destroying pests. Apply prior to use in construction. Ends or edges cut or bored after initial treatment should be brushed or sprayed with Coppernate 250™. Do not install treated articles until thoroughly dry. Use one coat on materials to be finished with paint or stain. If no finish is to be used, apply two liberal coats within the hour. Thoroughly cover the ends. The more preservative absorbed into the wood, the longer and more effective the protection.

The copper fungicide gives a green cast to Coppernate 250™ Wood Preservative. This product is not intended for use as a stain. The green color will fade within a few months when exposed to sunlight. Oil or alkyd stains or paints can be applied over Coppernate 250™ Preservative after thorough drying (about 48 hours), but the green may bleed through lighter colors.

This product is supplied at proper application consistency and is to be applied without thinning or diluting under normal environmental and application conditions. Brushes and other application equipment may be cleaned with paint thinner (mineral spirits).

KILLS TERMITES & WOOD EATING INSECTS

COPPER NAPHTHENATE CONCENTRATE 8%

ACTIVE INGREDIENT

Copper naphthenate 68.0%*
 INERT INGREDIENTS 32.0%
 TOTAL 100.0%
 *Equivalent to 8% metallic copper

Conforms to Government Specification MIL-M17231A.

BATCH NO.: _____

NET CONTENTS: 5 GALL. (4402204), 55 GALL. (4402201) BULK (44021001)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes skin irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS
 This pesticide is toxic to fish. Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
 Copper Naphthenate Concentrate 8% must be diluted before use with solvents such as mineral spirits, diesel fuel, mineral oil, etc., or solvents meeting AWWA Standard P-9¹ for protect treated items against deterioration by stain, mold and decay fungi, moss, mildew, termites, wood-boring beetles and carpenter ants.
 Copper naphthenate solutions may be applied to cellulose textiles and cordage products such as tents, awnings, tarpaulins, canvas products, ropes, nets, burlap for wrapping root systems, etc. However, Copper Naphthenate should not be used to treat textiles intended for uses resulting in repeated skin contact or contact with food or feed. Effective application results in 1 percent copper metal remaining in the treated product. The level of treatment is usually attained by dipping or soaking the product in a

solution containing 2% copper metal made by mixing Copper Naphthenate Concentrate 8% with a solvent such as mineral spirits.

Copper Naphthenate solutions may be applied to wood products such as lumber, boxes, poles, siding, turring strips, boats, piers, docks, boxes, roof shakes and shingles, porches, steps, sub-flooring, fences, pickets and rails, arbors, trellises, beverage cases, landscape timbers, wooden seedling trays, plant and flower boxes, etc. Effective application rates vary according to severity of conditions to which the treated product is exposed. Wood to be treated should be thoroughly seasoned and free of bark.

For above ground exposure, brush, spray or dip applications of solutions containing 1 or 2 percent copper metal are adequate for wood in non-critical applications. For wood used above ground in critical (structural) applications or under more severe exposure conditions where it is subject to extended periods of wetting, extended soaking or pressure treatment in accordance with AWWA Standards* with a solution containing 0.5 to 1.0 percent copper metal to a retention in the wood of .04 to .06 pounds copper metal per cubic foot is recommended.

For wood used in ground contact, extended soaking or pressure treatment in accordance with AWWA Standards* with a solution containing .75 to 1.0 percent copper metal to a retention in the wood of .04 to .10 pounds copper metal per cubic foot is recommended.

Copper naphthenate solutions may be used for internal or external remedial treatment of standing wood poles, piling and other existing structures.
 Copper Naphthenate Concentrate 8% may be used by formulators as an active ingredient source for ready-to-use pesticide products registered with the U.S. Environmental Protection Agency.
 *American Wood Preservers' Association

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

PESTICIDE DISPOSAL: Pesticide concentrate, solution, or residue, if not used, cannot be used or recycled. Should be disposed of according to procedures approved by federal, state, or local authorities.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

GENERAL: Consult federal, state or local disposal authorities for approved alternative procedures.

KEEP OUT OF REACH OF CHILDREN WARNING

STATEMENT OF PRACTICAL TREATMENT
 IF ON SKIN: Wash with plenty of soap and water. Get medical attention.
 IF INHALED: Remove to fresh air.
 IF IN EYES: Wash immediately with water. Get medical attention if irritation persists.
 IF SWALLOWED: Do not induce vomiting. Get medical attention.

SEE SIDE PANEL FOR ADDITIONAL
 PRECAUTIONARY STATEMENTS

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO EXCEPT IN WRITING WITH A SPECIFIC REFERENCE TO THIS WARRANTY. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

IBC MANUFACTURING COMPANY
 416 East Brooks Road - P.O. Box 9158
 Memphis, TN 38109

ACCEPTED
 with COMMENT: EPA Est. No. 1022-TN-1
 EPA Reg. No. 1022-528
 In EPA Letter Dated:

Under the Federal Insecticide, Fungicide, and Rodenticide Act
 registered under EPA Reg. No. 1022-528
 1022-528

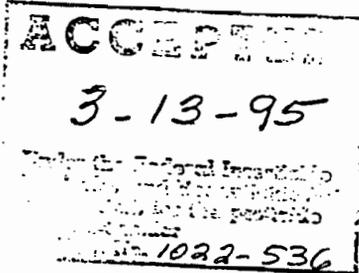
Net Contents:

CuRAP® 20

WOOD PRESERVATIVE PASTE

EFFECTIVE GROUNDLINE TREATMENT
FOR CONTROL OF DECAY AND INSECTS

FOR COMMERCIAL APPLICATOR USE ONLY
For Sale Only In 50 Pound Or Greater Containers



Ingredient Statement

Active Ingredients:

Copper naphthenate.....	18.16% *
Borax (sodium tetraborate decahydrate).....	40.00%

Inert Ingredients:	41.84%
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Total:	100.00%
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*Equivalent to 2% metallic copper.
U.S. Patented.

EPA Reg. No. 1022-536

EPA Est. No. 1022-TN-1

KEEP OUT OF REACH OF CHILDREN

DANGER

<p>Statement of Practical Treatment</p> <p>If IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes.</p> <p>If ON SKIN: Wash thoroughly with plenty of soap and water. Get medical attention.</p> <p>If SWALLOWED: Call a physician or poison control center. Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol.</p> <p>NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate use of gastric lavage.</p> <p>See back panel for additional precautionary statements.</p>
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Manufactured by:
IBC Manufacturing Company
416 East Brooks Road
P.O. Box 9158
Memphis, TN 38109-0158

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS**DANGER**

Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after skin contact and before eating, drinking, use of tobacco products, or using restrooms.

Applicators must wear gloves impervious to the wood treatment formulation (e.g., polyvinyl chloride (PVC) or neoprene) in all situations where dermal contact is expected (e.g., during the actual application process and when handling freshly treated wood).

Applicators should wear long sleeved shirts, long pants, and an impermeable apron during the application process and all situations where dermal contact is expected. Remove contaminated clothing and wash before reuse. Launder work clothing separately from other household clothing. Dispose of worn-out work clothing and work shoes or boots in any general landfill, in the trash, or in any other manner approved for pesticide disposal.

ENVIRONMENTAL HAZARDS

The pesticide is toxic to fish. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its label.

CuRap 20 is intended for use as a remedial treatment for standing wood utility poles and as a primary or remedial treatment for wooden structures standing in the ground that are susceptible to attack by decay and soft rot fungi, termites, carpenter ants, or wood boring beetles.

CuRap 20 may be applied to form a layer 1/16-inch to 3/8-inch thick by brush, trowel, or by application to Pol- Nu Paper. A POL-NU BANDAGE MAKER can also be used to prepare a BANDAGE. Use a trowel to apply **CuRap 20** to deep checks in wood or fill a caulking gun with the preservative and apply liberally.

For utility poles, pilings, posts, and other wooden structures standing in the ground, excavate the soil away from the structure to a depth of about 18 inches. Wire brush or scrape the surface to remove adhering soil and remove any damaged wood. The structure should be inspected for internal decay and insect attack by taking increment borings. If internal damage is found, early replacement or stubbing is recommended. Plug bore holes with locust plugs or treated wood plugs.

BANDAGES may be used to cover groundline areas of structures in bands typically 18 to 22 inches in height. **CuRap 20** should be applied to at least cover the wood surface 4 inches below the last evidence of decay and 3 inches above the groundline. More than one BANDAGE may be used in special cases where the structure spans a height greater than 22 inches, such as on hillsides or the circumference of the structures exceeds the BANDAGE length. Overlap ends of the BANDAGE to insure complete coverage of pole with preservative paste. Wrap BANDAGE tightly, stapling or nailing it in place. Wrap top with 3" black reinforced tape allowing tape to overlap bandage and staple into place. Back-fill and tamp dirt firmly, mounding within 1-inch of BANDAGE top. Do not back-fill above top edge of BANDAGE.

Other wooden structures, such as sills, headers, joists and other subfloor members, boats, bridge members, and railroad tie surfaces may be treated with **CuRap 20**. Apply by brush, trowel, caulk gun, or BANDAGE. Heavier application at points where condensation is likely to occur, where moisture may collect, and where end grain is exposed or butts against concrete or other wood members is recommended.

For control of internal decay of utility poles, drill 3/4-inch holes in each quarter of the pole near the areas of the pole where internal decay protection is required. Do not drill holes nearer than two feet of each other in the vertical direction. These holes should be at a 45 degree angle downward and to a depth equal to or slightly greater than the radius of the pole. Pack the preservative paste into the holes leaving enough room to insert treated wood plugs into the holes as a cap.

Wood treated with CuRap 20 should not be used where it may come in contact with food, feed or potable water.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal.

STORAGE: Store away from food or feed in a secure, well-ventilated area protected from extreme temperatures. Do not allow to freeze. Do not transfer to unmarked containers. Keep container closed when not in use.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Metal Container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Metal Drums: Completely empty liner. Dispose of liner in a sanitary landfill if allowed by state and local authorities. If drum is damaged and cannot be reused, dispose of in the same manner.

Plastic and paper CuRap 20 packaging materials may be used as wraps to cover the CuRap 20 treatment around the poles. Otherwise, dispose of empty bag(s) in a sanitary landfill or by incineration if allowed by State and local authorities.

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

CuRap® is a registered trademark of ISK Biosciences Corporation.

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ACCEPTED
with COMMENTS
in EPA Letter Dated:
01/11/89

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 74-24-1

JASCO

TERMIN-8 WOOD PRESERVATIVE GREEN

Seals
Wood

Repels
Water

- USES:
- BOATS/DOCKS
- DOORS
- WINDOWS
- FRAMES
- SHINGLES
- SHAKES
- STAIRS
- SILLS
- PORCHES
- FENCES
- POSTS
- FLOORING
- PATIO FURNITURE
- PLYWOOD
- PRESSURE-TREATED WOOD

ACTIVE INGREDIENTS:

COPPER NAPHTHENATE (equivalent to metallic copper 2%)	25.00%
MERT INCIPIENT	75.00%
TOTAL	100.00%

KILLS TERMITES & WOOD EATING INSECTS
PREVENTS ROT FUNGI AND MOLD
CONTROLS WARPING AND SWELLING
USE ABOVE OR BELOW GROUND

1 GALLON 3.78 LITERS

WARRANTY: Our only obligation shall be to replace or pay for any material proved defective. Beyond the purchase price of materials supplied by us, we assume no liability for damages of any kind including consequential and the user accepts the product "as is" and without warranties, express or implied. The suitability of the product for an intended use shall be solely up to the user. For specialized applications, consult your local representative.

JASCO TERMIN-8 PRECAUTIONARY STATEMENTS & HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Irritant if inhaled. Causes eye and skin irritation. Avoid contact with eyes, nose and clothing. Do not use in areas where children or pets are present. Wash thoroughly with soap and water after handling, and clothes before re-use. Clean container after each use. **FIRST AID — IF SWALLOWED,** do not induce vomiting. Call physician immediately. **IF IN EYES,** flush with plenty of water. If irritation persists, get medical attention. **ENVIRONMENTAL HAZARDS —** This product is toxic to fish. Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes. **PHYSICAL AND CHEMICAL HAZARDS — COMBUSTIBLE:** Do not store near heat or open flame. To avoid spontaneous combustion, discard any resin in a water-filled container.

DIRECTIONS FOR USE

It is the violation of Federal law to use this product in a manner inconsistent with the labeling.

DIP • SPRAY • BRUSH • ROLL

Paint, varnish, wax or other films and all built must be removed before applying Termin-8. All unseasoned wood should be removed at least 2 feet beyond any visible evidence of decay to control termites, carpenter ants and powder-post beetles. Wood must be normally dry.

ABOVE-GROUND WOOD: Soak wood for at least 3 minutes for best results. If this is not possible, apply 2 coats by brush, roller or low-pressure spray. Cover all surfaces. **BELOW-GROUND WOOD:** Soak wood for 12 to 24 hours covering 6 inches above ground level. If not possible, apply 2 heavy coats within 10 minutes of each other. **PRESSURE-TREATED WOOD:** Apply a generous coat to exposed surfaces from cutting, sanding or boring pressure-treated wood.

COVERAGE: 100 - 300 square feet, depending on the porosity and surface roughness. 7 gallons per 1000 board feet for open-slab treatment.

PRIMER: Ideal as an undercoating. Allow 24 hrs. drying time before finishing with paint or other coating material. Termin-8 may show through the first coat of some light-colored paints.

CLEAN-UP: Use paint thinner or mineral spirits.

STORAGE AND DISPOSAL

Store at temperature between 40°F and 100°F. If the product has been spilled or is leaking, remove source of spill or leak. Recover free liquid. Spread absorbent, then pick up and place in containers. When applicable, wash area with detergent and water. Store product only in the original container. Keep container closed when not in use. Do not reuse empty container. Securely wrap original in several layers of newspaper and discard in the trash.

NON-PHOTOCHEMICALLY REACTIVE U.S.C. 208 94.

EPA REG. NO. 7424-1 EPA EST. 7424-CA-1
KEEP OUT OF REACH OF CHILDREN
WARNING
See precautions on back panel.

JASCO CHEMICAL CORP.
MOUNTAIN VIEW, CA 94042 SANTA ANA, CA 92701





rotting fungi
actions given
the cellulose

heavy wooden
seasoned and
8 hours to be

oil should be
of thickness.
e soil may be
brush or spray
it. All cutting,
to treatment.

es, treat wood
y or brush the
joint, allowing
method is to
veral minutes.

until the sol-
roughly "dry".

COPPER TREAT 00

READY TO USE

COPPER NAPHTHENATE PRESERVATIVE



A preservative for cellulose products
such as wood, burlap, duck and other
textile products. Contains no wax.
Meets Federal Specification MIL-W-
18142B.

WOOD TREATING CHEMICALS DEPT.

KOPPERS COMPANY, INC.

5137 SOUTHWEST AVENUE, ST. LOUIS, MISSOURI 63110

WARNING

KEEP OUT OF REACH OF CHILDREN

See side panel for first aid and additional precautions.

READ "LIMIT OF WARRANTY AND LIABILITY"
BEFORE BUYING OR USING.
IF SUCH TERMS ARE NOT ACCEPTABLE, RETURN
AT ONCE UNOPENED.

EPA Reg. No. 453-68
EPA Est. 453-MO-1

*Contains a minimum of 68 gm/gal. (77° F.) of
Copper naphthenate as copper or 0.15 pound or
2.14% metal copper as copper naphthenate.

ACTIVE INGREDIENTS:	
Copper Naphthenate*	21.6%
Petroleum Solvent (Mineral Spirits)	73.0%
INERT INGREDIENTS	5.4%
TOTAL	100.0%

NET CONTENTS U.S. GALLONS

605-16

WARNING

HARMFUL IF SWALLOWED. CAUSES
EYE OR SKIN IRRITATION.

Do not get in eyes, on skin or on clothing. Use of goggles and
protective clothing (rubber gloves) is recommended when
brushing or dipping, and use of an approved respirator when
spraying. Use only in well ventilated areas. Not for use or
storage in or around the home. Avoid contamination of food.

FIRST AID: In case of contact, immediately flush eyes with
plenty of water for at least 15 minutes. For skin, wash with
soap and water. For eyes, call a physician. Remove and wash
contaminated clothing before reuse. If swallowed, force vomit-
ing by drinking promptly a large quantity of milk, egg whites,
gelating solution or if these are not available, drink large
quantities of water. Avoid alcohol. Call a physician immediately.

ENVIRONMENTAL CAUTIONS: This product is toxic to fish and
wildlife. Keep out of lakes, streams, or ponds. Do not con-
taminated water by cleaning of equipment or disposal of wastes.
Apply only as specified on this label.

CONTAINER AND DISPOSAL: Do not reuse empty container.
Destroy it by perforating or crushing. Bury or discard in a
safe place away from water supplies.

PHYSICAL AND CHEMICAL HAZARDS:
Combustible. Do not use, pour, spill or store near heat or
open flame. The flash point of this product is about 105° F.
The solvent used in this product has a typical flash point of
103° F.

LIMIT OF WARRANTY AND LIABILITY
This company warrants that this material conforms to the chemical
description on the label and is reasonably fit for the purposes referred
to in the directions for use. This product is sold subject to the under-
standing that the buyer assumes all risks of use or handling of this
material not in strict accordance with the directions given herewith,
which are beyond the control of the seller, such as for example in-
compatibility with other products and the manner of its use of appli-
cation. **NO OTHER EXPRESSED OR IMPLIED WARRANTY OF FITNESS OR
MERCHANTABILITY IS MADE.** The exclusive remedy of the buyer, and
the limit of liability of this company or any other seller for any and
all losses, injuries or damages resulting from the use or handling of
this product shall be the purchase price paid by the user or buyer
for the quantity of this product involved. The buyer and all users are
deemed to have accepted the terms of this notice which may not be
varied by any verbal or written agreement.

KOPPERS

This product is highly effective against wood rotting fungi and termites when applied according to the directions given below. It is also a good fungicide for use on the cellulose products listed below.

DIRECTIONS FOR USE

WOOD PRESERVATION:

Fence posts, poles, foundation timbers and heavy wooden members should be free of bark, dry, and well seasoned and immersed in the product for a period of 12 to 48 hours to be an effective wood preserver.

Lumber intended to be in contact with the soil should be dipped for a minimum of 5 minutes per inch of thickness. Lumber not intended to be in contact with the soil may be treated as above, or it can be treated by the brush or spray method giving two or more coats of the product. All cutting, framing and boring should be completed prior to treatment.

TERMITE CONTROL: For protection against termites, treat wood prior to use in construction as outlined above.

FOR BURLAP, DUCK, ROPE, NETS, TEXTILES: Spray or brush the solution onto rope or fabric to the point of runoff, allowing several minutes for absorption. Let dry. Another method is to dip the fabric or rope into the solution for several minutes, then squeeze out remaining liquid and let dry.

Do not use any item treated with this product until the solvents have volatilized from them and they are thoroughly "dry".

COPPER TREAT 00



READY TO USE

COPPER NAPHTHENATE PRESERVATIVE

A preservative for cellulose products such as wood, burlap, duck and other textile products. Contains no wax. Meets Federal Specification MIL-W-18142B.

WOOD TREATING CHEMICALS DEPT.

KOPPERS COMPANY, INC.

5137 SOUTHWEST AVENUE, ST. LOUIS, MISSOURI 63110

WARNING

KEEP OUT OF REACH OF CHILDREN

See side panel for first aid and additional precautions.

READ "LIMIT OF WARRANTY AND LIABILITY" BEFORE BUYING OR USING.
IF SUCH TERMS ARE NOT ACCEPTABLE, RETURN AT ONCE UNOPENED.

ACTIVE INGREDIENTS:	
Copper Naphthenate*	21.5%
Petroleum Solvent (Mineral Spirits)	73.0%
INERT INGREDIENTS	5.4%
TOTAL	100.0%

*Contains a minimum of 68 gm/gal. (7" F) of Copper naphthenate as copper or 0.15 pound or 2.14% metal copper as copper naphthenate.

HARMFUL EYE OR
Do not get in protective clothing or spraying. Use storage in or

FIRST AID: In plenty of water soap and water contaminated by drinking solution quantities of

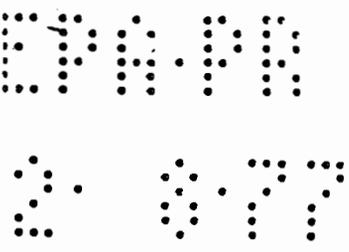
ENVIRONMENT
lifecycle. Keep laminated water Apply only as

CONTAINER
Destroy it by safe place as

PHYSICAL AND
Combustible.
open flame. The solvent is 103° F.

LIMIT OF WARR
This company description on the direct material not in which are beyond compatibility with calcium, NO OTHER MERCHANTABLE. The limit of the all losses, injury this product should for the quantity determined to have varied by any v

NET CONTENTS 5.5 GALLONS





PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS*
(AND DOMESTIC ANIMALS)

HARMFUL IF SWALLOWED. MAY BE ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION.

Do not get in eyes, on skin or on clothing. Do not breathe vapor or spray mist. Wear protective clothing and rubber gloves when handling this product or freshly treated lumber.

KEEP OUT OF REACH OF CHILDREN.

USE WITH ADEQUATE VENTILATION.

Vapors may cause injury if adequate ventilation is not insured. Do not use this product indoors, or any other confined areas, where vapors may concentrate and cause injury to plant or animal life. Keep containers closed when not in use.

FIRST AID:
 If swallowed, **CALL A PHYSICIAN IMMEDIATELY. DO NOT** induce vomiting. In case of skin contact, wash thoroughly with soap and water; for eyes, flush immediately with plenty of water for 15 minutes and get medical attention. If inhaled, remove to fresh air.

PHYSICAL OR CHEMICAL HAZARDS

COMBUSTIBLE: Do not use, pour, spill or store near heat or open flame.
IN CASE OF FIRE: Use dry chemicals, foam, water fog or CO₂. Cool closed containers with water.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Keep out of any body of water. Do not contaminate water by cleaning of equipment or disposal of wastes.

LIMIT OF WARRANTY AND LIABILITY

This company warrants that this material, conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the directions for use. This product is sold subject to the understanding that the buyer assumes all risks of use or handling of this material not in strict accordance with the directions given herewith which are beyond the control of the seller, such as for example incompatibility with other products and the manner of its use of application. **NO OTHER EXPRESSED OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE.** The exclusive remedy of the buyer, and the limit of liability of this company or any other seller for any and all losses, injuries or damages resulting from the use or handling of this product shall be the purchase price paid by the user or buyer for the quantity of this product involved. The buyer and all users are deemed to have accepted the terms of this notice which may not be varied by any verbal or written agreement.

copper naphthen-

sible for obtaining Environmental Pro-

food, or feed by

e, or rinse that d be disposed of late or local dis-

valent) and dis- place.

posal authorities

COPPER TREAT 00 

CONCENTRATE

COPPER NAPHTHENATE PRESERVATIVE

FOR MANUFACTURING USE ONLY

WOOD TREATING CHEMICALS DEPT.

KOPPERS COMPANY, INC.

5137 SOUTHWEST AVENUE, ST. LOUIS, MISSOURI 63110

WARNING

KEEP OUT OF REACH OF CHILDREN

See side panel for first aid and additional precautions.

READ "LIMIT OF WARRANTY AND LIABILITY" BEFORE BUYING OR USING.

IF SUCH TERMS ARE NOT ACCEPTABLE, RETURN AT ONCE UNOPENED.

EPA Reg. No. 453-290
 EPA Est. 453-MO-1

ACTIVE INGREDIENTS:

Copper Naphthenate*	80.00%
INERT INGREDIENTS	20.00%
TOTAL	100.00%

*As copper metal 8%

NET WEIGHT

POUNDS

NET WEIGHT AVAILABLE

KOPPERS

This product is used in the manufacture of copper naphthenate preservative solutions.

Formulators using this product are responsible for obtaining their own label registration with the U.S. Environmental Protection Agency.

COPPER TREAT 00



STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

PESTICIDE DISPOSAL: Pesticide, spray mixture, or rinse that cannot be used or chemically reprocessed should be disposed of according to procedures approved by Federal, State or local disposal authorities.

CONTAINER DISPOSAL: Triple rinse (or equivalent) and dispose of in an approved landfill or bury in a safe place.

GENERAL: Consult Federal, State, or local disposal authorities for approved alternative procedures.

CONCENTRATE COPPER NAPHTHENATE PRESERVATIVE

FOR MANUFACTURING USE ONLY

WOOD TREATING CHEMICALS DEPT.

KOPPERS COMPANY, INC.

5137 SOUTHWEST AVENUE, ST. LOUIS, MISSOURI 63110

WARNING

KEEP OUT OF REACH OF CHILDREN

See side panel for first aid and additional precautions.

READ "LIMIT OF WARRANTY AND LIABILITY" BEFORE BUYING OR USING.

IF SUCH TERMS ARE NOT ACCEPTABLE, RETURN AT ONCE UNOPENED.

EPA Reg. No. 453-290
EPA Est. 453-MO-1

PRECAUTIONS
HAZARDS (AND DOMESTIC)
HARMFUL THROUGH

Do not get in eyes or spray mist. Handling this product

KEEP OUT OF

USE WITH ADULTS

Vapors may cause irritation. Do not use this product where vapors may be inhaled. Keep children away from this product.

FIRST AID: If swallowed, do not vomit. In case of eye contact, flush with water for eyes. Rinse and get medical attention.

PHYSICAL OR CHEMICAL PROPERTIES: Combustible. Open flame. In case of fire, use dry chemical or carbon dioxide extinguishers. Do not use water.

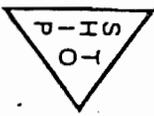
ENVIRONMENT: This product is not toxic to fish, birds, or mammals. Do not discharge into water.

LIMIT OF WARRANTY: This company warrants that the product described on this label is as described and that it is fit for the purpose intended. The limit of liability for the quantity of product described is as stated on this label.

ACTIVE INGREDIENTS: Copper Naphthenate* 80.00%
INERT INGREDIENTS: 20.00%
TOTAL: 100.00%
*As copper metal 8%

ACCEPTED
with COMMENTS
In EPA Letter Dated:

5-18-92



Registered under EPA Reg. No. 9630-5

P.O. #

704

CONTROL
NET
TARE
GROSS

MARDON S120 WOOD PRESERVATIVE

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
Causes substantial but temporary eye, nose and skin irritation. Harmful if swallowed or absorbed through skin. Do not get in eyes, skin, or clothing. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling. Remove contact lens and wash before reuse. Petroleum or repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS
Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Apply this product only as specified on the label. Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

PHYSICAL AND CHEMICAL HAZARDS
Do not contaminate water, food or feed by storage or disposal. Own labeling is prohibited.
PESTICIDE DISPOSAL
Pesticide, spray mixture or residue that cannot be used or chemically repackaged should be disposed of according to procedures approved by Federal, state or local disposal authorities.
CONTAINER DISPOSAL
Triple rinse (or equivalent). Then offer for recycling or reuse, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

GENERAL
Consult federal, state or local disposal authorities for approved alternative procedures.

HEALTH	1
FLAMMABILITY	2
REACTIVITY	0
PERSONAL PROTECTION	B

ACTIVE INGREDIENT:
Copper Naphthenate (Copper, as metal, 82) 77.00%
INERT INGREDIENTS 23.00%
TOTAL 100.00%
PRODUCT WT/GAL = 8.3 LBS.

FOR USE ONLY IN THE MANUFACTURING OF OTHER FUNGICIDES
WARNING
CONTAINS PETROLEUM DISTILLATES
HARMFUL IF SWALLOWED
IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

EPA Reg. No. 9630-5
EPA Est. No. 9630-PA-01

KEEP OUT OF REACH OF CHILDREN
WARNING
STATEMENT OF PRACTICAL TREATMENT
IF IN EYES: Hold eyes open and flush with steady gentle stream of water for 15 minutes.
IF SWALLOWED: Drink promptly a large quantity of milk, egg whites, gelatin mixture, or, if these are not available, large quantities of water. Avoid alcohol. Do not induce vomiting as it may cause aspiration pneumonia.
IF ON SKIN: Wash with plenty of soap and water. GET MEDICAL ATTENTION.

DIRECTIONS FOR USE
Detailed information on chemical and physical properties and formulating recommendations for MARDON S120 are available on request from Mooney Chemicals, Inc. Labeling for products formulated from this product must conform to that which is currently registered with the U.S. Environmental Protection Agency. Any variation from federally registered labeling for products containing MARDON S120 must be supported by data and registered by the formulator.

Mooney Chemicals, Inc.
Two Mile Run Rd., Franklin, Venango County, PA 16223-0122

ACCEPTED
with COMMENTS
In EPA Letter Dated:

5-12-92



Federal Insecticide
and Fungicide Act
model, for the pesticide
registered under EPA Reg. No.

9630-8

710 CONTROL
NET TARE
GROSS

P.O.#

M **GARD W112**
WOOD PRESERVATIVE
WATER-REPELLANT

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
Causes substantial but temporary eye injury and skin irritations.
Harmful if swallowed or absorbed through skin. Do not get in eyes,
skin, or clothing. Wear goggles, face shield, or safety glasses.
Wash thoroughly with soap and water after handling. Remove con-
taminated clothing and wash before reuse. Prolonged or repeated skin
contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS
Do not apply directly to water, to areas where surface water is
present, or to intertidal areas below the mean high water mark.
PHYSICAL OR CHEMICAL HAZARDS

Apply this product only as specified on the label.
Do not use, pour, spill or store near heat or open flame. Use only
with adequate ventilation. Close container after each use.
STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.
Open dumping is prohibited.

PESTICIDE DISPOSAL
Pesticide, spray mixture or rinseate that cannot be used or chem-
ically reprocessed should be disposed of according to procedures
approved by federal, state or local disposal authorities.

CONTAINER DISPOSAL
Triple rinse (or equivalent). Then offer for recycling or
reconditioning, or puncture and dispose of in a sanitary
landfill, or by other procedures approved by state and local
authorities.

GENERAL
Consult federal, state or local disposal authorities for
approved alternative procedures.

HEALTH 1

FLAMMABILITY 2

REACTIVITY 0

PERSONAL PROTECTION

ACTIVE INGREDIENT:
Copper Naphthenate
(Copper, as metal, 62) 58.00%

INERT INGREDIENTS 42.00%

TOTAL 100.00%

PRODUCT WT/GAL = 8.2 LBS.

**FOR USE ONLY IN THE MANUFACTURING
OF OTHER FUNGICIDES**

WARNING

**CONTAINS PETROLEUM DISTILLATES
HARMFUL IF SWALLOWED**
IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT
IN A MANNER INCONSISTENT WITH ITS LABELING.

EPA Reg. No. 9630-8
EPA Est. No. 9630-PA-01

**KEEP OUT OF REACH OF CHILDREN
WARNING**

**STATEMENT OF PRACTICAL TREATMENT
IF IN EYES:** Hold eyes open and flush with steady gentle
stream of water for 15 minutes.
IF SWALLOWED: Drink promptly a large quantity of milk, egg
whites, gelatin mixture, etc. if these are not
available, large quantities of water. Avoid
alcohol. Do not induce vomiting
cause respiratory pneumonia.
IF ON SKIN: Wash with plenty of soap and water.
GET MEDICAL ATTENTION

DIRECTIONS FOR USE

Detailed information on chemical and physical properties and formulating
recommendations for M-GARD W112 are available on request from Mooney
Chemicals, Inc. Labeling for products formulated from this
product must conform to that which is currently registered with the U.S.
Environmental Protection Agency. Any variation from federally registered
labeling for products containing M-GARD W112 must be supported by data
and registered by the formulator.

UNFAILING INTEGRITY - QUALITY - DELIVERY



**Mooney
Chemicals, Inc.**

TWO MILE RUN RD., FRANKLIN, VENANGO COUNTY, PA. 16323 • 814/432-2125

45

ACCEPTED

JAN - 4 1993

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 9630-11



703 CONTROL NET TARE GROSS

P.O.#



WOOD PRESERVATIVE

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

WOOD PRESERVATION: For the control of fungal rot and decay, mildew and mildew, moss, termites, (including Formosan termites) and other wood destroying insects in wood products...

ACTIVE INGREDIENT: Coppar Naphtholate (Copper, as metal, 6Z) 58.00% INERT INGREDIENTS 42.00% TOTAL 100.00% CONTAINS PETROLEUM DISTILLATES PRODUCT WT/GAL = 8.3 LBS. COVERAGE: One gallon covers 100 square feet.

See other precautionary statements on side panel.

HARMFUL IF SWALLOWED KEEP OUT OF REACH OF CHILDREN WARNING STATEMENT OF PRACTICAL TREATMENT IF IN EYES: Flush with steady gentle stream of water for 15 minutes. IF SWALLOWED: Drink promptly a large quantity of milk...

PRECAUTIONARY STATEMENTS: HAZARD TO HUMANS AND DOMESTIC ANIMALS: HARMING

Causes substantial but temporary eye injury and skin irritation. Harmful if swallowed or absorbed through skin. Do not get in eyes, skin, or clothing. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling...

STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. PESTICIDE DISPOSAL: Pesticide, spray mixture or residue that cannot be used or chemically reprocessed should be disposed of according to procedures approved by federal, state or local disposal authorities.

Table with hazard categories: HEALTH (1), FLAMMABILITY (2), REACTIVITY (0), PERSONAL PROTECTION (B)

ENVIRONMENTAL HAZARDS: This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where water is present, or to intertidal areas below the mean high water mark.

PHYSICAL OR CHEMICAL HAZARDS: Apply this product only as specified on the label. Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

CONTAINER DISPOSAL: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. GENERAL: Consult federal, state or local disposal authorities for approved alternate procedures.

ENVIRONMENTAL HAZARDS: This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where water is present, or to intertidal areas below the mean high water mark.

PHYSICAL OR CHEMICAL HAZARDS: Apply this product only as specified on the label. Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

CONTAINER DISPOSAL: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. GENERAL: Consult federal, state or local disposal authorities for approved alternate procedures.

Table with hazard categories: HEALTH (1), FLAMMABILITY (2), REACTIVITY (0), PERSONAL PROTECTION (B)

ENVIRONMENTAL HAZARDS: This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where water is present, or to intertidal areas below the mean high water mark.

PHYSICAL OR CHEMICAL HAZARDS: Apply this product only as specified on the label. Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

CONTAINER DISPOSAL: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. GENERAL: Consult federal, state or local disposal authorities for approved alternate procedures.

Table with hazard categories: HEALTH (1), FLAMMABILITY (2), REACTIVITY (0), PERSONAL PROTECTION (B)

OM GROUP INC. Outokumpu Chemical Oy Mooney Chemicals, Inc. Vassett S.A. MOONEY CHEMICALS, INC. ALWAYS ADD M-GARD TO WATER. UNFAIRING INTEGRITY - QUALITY - DELIVERY



TWO MILE RUN RD., FRANKLIN VENANGO COUNTY, PA 16223 - 814-332-2125

EPA Reg. No. 9630-11 EPA Est. No. 9630-PA-01

Handwritten number 46

ACCEPTED

DEC 29 1992

Under the Federal Insecticide, Fungicide, and Rodenticide Act, this product is a pesticide.

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GARD 5520

WOOD PRESERVATIVE

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING**

Causes substantial but temporary eye injury and skin irritation. Harmful if swallowed or absorbed through skin. Do not get in eyes, skin or clothing; wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS
This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where surface water is present, or to potential areas below the mean high water mark.

PHYSICAL OR CHEMICAL HAZARDS
Combustible: do not use, pour, spill, or store near heat or open flame. Close container after each use.

**STORAGE AND DISPOSAL
PROHIBITIONS**

Do not contaminate water, food or feed by storage or disposal. Pesticide, spray mixture or residue that cannot be used or chemically reprocessed should be disposed of according to procedures approved by federal, state or local authorities.

CONTAINER DISPOSAL
Triple rinse (or equivalent), then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

GENERAL
Consult federal, state or local disposal authorities for approved alternative procedures. **STORAGE**
Store at temperatures between 0 F and 120 F. Store in original container only. Keep container closed when not in use.

HEALTH

FLAMMABILITY

REACTIVITY

PERSONAL PROTECTION

1

2

0

B

ACTIVE INGREDIENT: 80.00%
Copper Naphthenate
(Copper, as Metal, 82)

INERT INGREDIENTS: 20.00%
TOTAL 100.00%

CONTAINS PETROLEUM DISTILLATES
PRODUCT WT/GAL = 8.3 LBS.

See other precautionary statements on side panel.

**HARMFUL IF SWALLOWED
KEEP OUT OF REACH OF CHILDREN
WARNING**

**STATEMENT OF PRACTICAL TREATMENT
IF IN EYES:** Hold eyes open and flush with steady gentle stream of water for 15 minutes.

IF SWALLOWED: Drink promptly a large quantity of milk, egg whites, gelatin mixture, or, if these are not available, large quantities of water. Avoid alcohol. Do not induce vomiting, as it may cause aspiration pneumonia. Flush with plenty of soap and water.

IF ON SKIN: GET MEDICAL ATTENTION

DIRECTIONS FOR USE
IN A MANNER INCONSISTENT WITH ITS LABELING.
IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT

WOOD PRESERVATION: For the control of fungal rot and decay, mild and mildew moss, termites, (including Formosan termites) and other wood destroying insects in wood products including poles, lumber, timbers, fencing, ties, posts and pilings, post-in-sills, docks, bents, utility poles, structural timbers, wire timbers, bridge timbers, landscape timbers, cross-ties, stakes and flooring. M-CARD 5520 may be used to provide protection for wood in contact with soil, concrete, or water. Maximum wood treatment and preservation are achieved by pressure treatment to obtain a minimum average copper retention in the wood of 0.04 pcf for above-ground exposure and 0.06 pcf for soil contact. Alternatively, M-CARD 5520 can be applied to the wood by brushing, spraying or dipping. Because of the limited penetration of these superficial application methods, they should be limited to above-ground exposures only, unless the wood product is thin or small enough to permit complete penetration. Do not apply over painted or varnished surfaces. Do not apply over dirt.

WOOD PREPARATION: Wood should be clean, dry, well seasoned, and free of bark. Application of M-CARD 5520 to wood which has been previously treated with a coating such as paint or varnish will provide limited or no penetration and protection.

TREATING SOLUTIONS: M-CARD 5520 should be diluted before application to wood, except in a hydrocarbon or petroleum solvent. M-CARD 5520 is completely soluble in all hydrocarbon solvents, such as kerosene, mineral spirits, kerosene and fuel oils. The mixture of solvent and M-CARD 5520 should be agitated before use to provide a homogeneous solution. The ratio of coverage for brushing and spraying is typically one gallon per 100-200 sq. ft. Typically for pressure treatments, a 62 to 132 by weight solution of M-CARD 5520 in the solvent should be used. For brushing, spraying or dipping, a 132 to 252 by weight solution of M-CARD 5520 in the solvent should be used. NOTE: A 67 solution is made by mixing 15.7 parts of solvent with one part of M-CARD 5520. A 132 solution is 6.7 parts of solvent per part of M-CARD 5520, and a 252 solution is three parts of solvent per part of M-CARD 5520.

UNPAID INTEGRITY - QUALITY - DELIVERY



OM GROUP, INC.
Outokumpu Chemical Oy
Mooney Chemicals, Inc.
Vassett S.A.

MOONEY CHEMICALS, INC., VENANGO COUNTY, PA 16323 - 814-332-2123
TWO MILE RUN RD., FRANKLIN
VENANGO COUNTY, PA 16323 - 814-332-2123
OMG 5520 11-12-86.8 (11-12-92 Pending Approval)

EPA Reg. No. 9630-12
EPA Est. No. 9630-PA-01

47

with COMMENTS
In EPA Letter Dated:
DEC 29 1992

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Under the Federal Insecticide
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No. 15
9030-0 P.O.#

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M-GARD 5540 WOOD PRESERVATIVE

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes skin irritation. Do not get on skin or clothing. Harmful if swallowed or absorbed through skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

PHYSICAL OR CHEMICAL HAZARDS

Apply this product only as specified on the label. Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

STORAGE AND DISPOSAL

Store at temperatures between 0 F and 100 F. If the product has been spilled or is leaking, remove the source of the spill or leak. Recup free liquid. Spread absorbent, then pick up and place in containers. Then, where applicable, wash area with detergent and water. Store product in the original container only. Keep container when not in use. Do not use empty container. Wrap container and put into trash collection.

HEALTH 1
FLAMMABILITY 2

REACTIVITY 0

PERSONAL PROTECTION B

ACTIVE INGREDIENT:
Copper Naphthenate
(Copper, as metal, 2%) 19.25%
INERT INGREDIENTS 80.75%
TOTAL 100.00%
CONTAINS PETROLEUM DISTILLATES
PRODUCT WT/GAL 6.8 LBS.

See other precautionary statements on side panel.

HARMFUL IF SWALLOWED
KEEP OUT OF REACH OF CHILDREN
WARNING
COMBUSTIBLE

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyes open and flush with steady gentle stream of water for 15 minutes.
IF SWALLOWED: Do not promptly a large quantity of milk, egg white, gelatin mixture, or, if these are not available, large quantities of water. Avoid alcohol. Do not induce vomiting as it may cause respiration pneumonia.
IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT UNLESS IN A MANNER INCONSISTENT WITH ITS LABELING.

M-GARD 5540 WOOD PRESERVATIVE FOR WOOD SURFACES IN CONTACT WITH SOIL, CONCRETE OR WATER INCLUDING FOUNDATIONS-STILTS-DOCKS-BOATS-FENCE POSTS.
M-GARD 5540 is only intended for use on exterior wood. Do not apply to food or feed contact surfaces. Do not contaminate drinking water with treated articles.
M-GARD 5540 Wood Preservative provides protection against moisture, rot and mildew on any natural wood surface. This copper naphthenate wood preservative and insecticide will preserve, protect and seal wood surfaces that will be in contact with soil, water or concrete.

The copper fungicide gives a green cast to M-GARD 5540 Wood Preservative. This product is not intended for use as a stain. The green color will fade within a few months when exposed to sunlight. Oil or alkyl stains or paints can be applied over M-GARD 5540 Wood Preservative after overnight dry but the green may bleed through lighter colors. Do not over-coat M-GARD 5540 Wood Preservative with latex paint or clear finishes until thoroughly cured (6-12 months).

PREPARATION

Wood should be clean, dry, well seasoned and free of bark.

APPLICATION

M-GARD 5540 Wood Preservative should be applied liberally by brush, roller, spray or dipping in a container. Dipping-wood should be dipped 3 to 20 minutes per inch of thickness. Fence posts, poles, foundations timbers and heavy wooden members should be immersed in the product for 12 to 48 hours.

Do not thin - Materials applied at proper application consistency. Use one coat on materials to be finished with paint or stain. If no finish is to be used, apply two liberal coats within the hour. Thoroughly cover ends. The more preservative absorbed by the wood, the longer and more effective the protection period. Clean painting equipment with mineral spirits for quick cleanup.

NOTE TO USER

Do not apply over painted or varnished surfaces. Do not apply over bark.

WOOD PRESERVATION: For the control of fungal rot and decay, mold and mildew, insect termites, (including Formosan termites) and other wood destroying insects in wood products.



OM GROUP, INC.
Outokumpu Chemical Oy
Mooney Chemicals, Inc.
Vassett S.A.
TWO MILE RUN RD., FRANKLIN
VENANGO COUNTY, PA 16223-817 32-2125
M-GARD 5540 11-12-86.6 (11-23-92 PENDING APPROVAL)

EPA Reg. No. 9630-15
EPA Est. No. 9630-PA-01

In EPA Letter Dated:

DEC 30 1992

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9630-17



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WOOD PRESERVATIVE

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING
Causes skin irritation. Do not get on skin or clothing. Harmful if swallowed or absorbed through skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS
This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

Although copper is an essential nutrient for soil and although copper naphthenate applied to soil or plant wounds may have a beneficial effect in certain circumstances, large amounts of this product sprayed or otherwise applied to certain plants may cause plant injury.

PHYSICAL OR CHEMICAL HAZARDS
Apply this product only as specified on the label.
Do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation. Close container after each use.

STORAGE AND DISPOSAL
PROHIBITIONS: Do not contaminate water, feed or feed by storage or disposal.

PESTICIDE DISPOSAL: Pesticide, spray mixture or residue that cannot be used or chemically reprocessed should be disposed of according to procedures approved by Federal, state or local authorities.

CONTAINER DISPOSAL: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by procedures approved by state and local authorities. A 5-gal container and get into trash collection.

STORAGE: Store at temperatures between 50°F and 100°F. If product has been spilled or is leaking, remove the source of the spill or leak. Recover free liquid. Spread absorbent, then pick up and place in containers. Do not reuse absorbent. Wash area with detergent and water. Store product in original container only. Do not contaminate containers. End or feed. Seal containers close when not in use.

HEALTH	1
FLAMMABILITY	2
REACTIVITY	0

ACTIVE INGREDIENT:	19.25%
Copper Naphthenate	
(Copper or metal)-Zn	
INERT INGREDIENTS	80.75%
TOTAL	100.00%
CONTAINS PETROLEUM DISTILLATES	
PRODUCT WT/GAL 8.25 LBS.	

See other precautionary statements on side panel.

HARMFUL IF SWALLOWED
KEEP OUT OF REACH OF CHILDREN
WARNING
COMBUSTIBLE

STATEMENT OF PRACTICAL TREATMENT
IF IN EYES: Hold eyes open and flush with steady gentle stream of water for 15 minutes.
IF SWALLOWED: Drink promptly a large quantity of milk, egg white, gelatin mixture, or, in their absence, any non-alcoholic, non-oily liquid. Do not induce vomiting. Avoid alcohol. Do not induce vomiting as it may cause respiratory pneumonia.
IF ON SKIN: Wash with plenty of soap and water.
GET MEDICAL ATTENTION.

EPA Reg. No. 9630-17
EPA Est. No. 9630-PA-01

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

WOOD PRESERVATION: For the control of fungal rot and decay, mildew and mildew, termites, (including Formosan termites) and other wood destroying insects in wood. M-CARD 4542 WOOD PRESERVATIVE FOR WOOD SURFACES IN CONTACT WITH SOIL, CONCRETE, OR WATER INCLUDING FOUNDATIONS-SILLS-DOCKS-BOATS-FENCE POSTS.

M-CARD 4542 is only intended for use on exterior wood. Do not apply to food or feed contact surfaces. Do not contaminate drinking water with treated articles.

M-CARD 4542 Wood Preservative provides protection against moisture, rot and mildew on any exterior wood surface. This copper naphthenate wood preservative and insecticide will preserve, protect and seal wood surfaces that will be in contact with soil, water or concrete.

The copper fungicide gives a green cast to M-CARD 4542 Wood Preservative. This product is not intended for use as a stain. The green color will fade within a few months when exposed to sunlight. Oil or alkyl stains or paints can be applied over M-CARD 4542 Wood Preservative after overnight dry but the green may bleed through lighter colors. Do not over-coat M-CARD 4542 Wood Preservative with latex paint or clear finishes until thoroughly cured (6-12 months).

PREPARATION
Wood should be clean, dry, well seasoned and free of bark.

APPLICATION
M-CARD 4542 Wood Preservative should be applied liberally by brush, roller, spray or dipping in a container.

Dipping-wood should be dipped 3 to 30 minutes per inch of thickness. Fence posts, poles, foundations timbers and heavy wooden members should be immersed in the product for 12 to 48 hours.

Do not thin - Materials supplied at proper application consistency. Use one coat on materials to be finished with paint or stain. If no finish is to be used, apply two liberal coats within the hour. Thoroughly cover ends. The more preservative absorbed by the wood, the longer and more effective the protection period. Clean painting equipment with mineral spirits for quick cleanup.

NOTE TO USER
Do not apply over painted or varnished surfaces. Do not apply over bark.

UNFAILING INTEGRITY - QUALITY - DELIVERY
OM GROUP, INC.
Outokumpu Chemical Oy
Mooney Chemicals, Inc.
Vasset S.A.
MOONEY CHEMICALS, INC. TWO MILE RUN RD., FRANKLIN
VENANGO COUNTY, PA 16233 - 814-432-2125
MC1-4542 11-12-86.4 (Rev. 2-13-92)



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DESCRIPTION

COP-R-PLASTIC is designed for remedial treatment of in-service poles, piling, posts and other timber members. It may be applied by brush, trowel or pump.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

EXTERNAL TREATMENT: Apply at a rate of 1/16" to pole or timber exterior. Typical pole application is from 3" above to 18" below groundline and lower where deeper decay is suspected. Application on poles to be restored should extend the length of wrap-around type repair systems. Wrap treated area with water-proof bandage, OSHOSHIELD.

INTERNAL TREATMENT: For control of internal decay in poles and other timbers, holes may be drilled in areas of the pole or timber where protection is required. Fill decay pockets and voids using a grease gun or other pressurized applicator. Plug application holes with secure-fitting dowels.

STORAGE AND DISPOSAL

STORAGE:

Do not contaminate water, food or feed by storage or disposal.

CONTAINER DISPOSAL:

Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

If product is in metal container, do not attempt to burn or incinerate. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

PESTICIDE DISPOSAL:

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

COP-R-PLASTICTM WOOD PRESERVING COMPOUND

ACTIVE INGREDIENTS:

Sodium Fluoride	44.4%
Copper Naphthenate*	20.0%
Inert Ingredients**	35.6%
TOTAL	100.0%

*Equivalent to 2.0% Copper as Metal

**Contains Petroleum Distillates

KEEP OUT OF REACH OF CHILDREN DANGER STATEMENT OF PRACTICAL TREATMENT

If in eyes: Hold eyelids open and flush with a steady gentle stream of water for 15 minutes. Get medical attention immediately.

If swallowed: Drink promptly large quantities of milk, egg white, gelatin solution, or, if these are not available, large quantities of water. Avoid alcohol. Do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

If on skin: Wash with plenty of soap and water. Get medical attention.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

NET CONTENTS 5 GALLONS (18.93 L.)

COP-R-PLASTICTM contains recognized salt preservatives used successfully in the art of wood preservation for more than forty (40) years. This combination of sodium fluoride and copper naphthenate provides deep, long lasting protection against decay.

COP-R-PLASTICTM is designed for use in ground-line treatment of standing poles, piling and other timber members.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Wear face shield or goggles. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

OSMOSE

WOOD PRESERVING, INC.

980 Ellicott Street

Buffalo, New York 14209

E.P.A. Est 3008-NY-1

E.P.A. Registration No. 3008-55

