



MATERIAL SAFETY DATA SHEET

("essentially similar" to OSHA - 20)

Notice: The information herein is given in good faith but no warranty, express or implied, is made.

SECTION I - PRODUCT IDENTIFICATION	
MANUFACTURER'S NAME OSMOSE WOOD PRESERVING, INC.	EMERGENCY TELEPHONE NO. (716) 882-5905
ADDRESS 980 ELLICOTT STREET, BUFFALO, 14209	DATE FORM WRITTEN 8/1/85
TRADE NAME PATOX POLE WRAP	SYNONYMS

SECTION II - HAZARDOUS INGREDIENTS ²			
MATERIAL AND COMPONENT	CAS NO.	%	TLV
Sodium Fluoride	7681-49-4	37	2.5mg/M ³ as F
Potassium Dichromate	7778-50-9	12.5	0.1mg/M ³ as Cr
Sodium Pentachlorophenate & Tetrachlorophenate	131-52-2	9.5	0.5mg/M ³ as Skin
Coal Tar Creosote	8001-58-9	11.0	0.2mg/M ³ as CTPV

SECTION III - PHYSICAL DATA			
BOILING POINT, 760 MM HG	N/A	MELTING POINT	N/A
SPECIFIC GRAVITY (H ₂ O = 1)	> 1	VAPOR PRESSURE	N/A
VAPOR DENSITY (AIR = 1)	N/A	SOLUBILITY IN H ₂ O % BY WT	25%
% VOLATILES BY VOL.	10	EVAPORATION RATE (BUYLY ACETATE = 1)	N/A
APPEARANCE AND ODOR	Pole wrap bandage	Ph (AS IS)	N/A
		Ph (1% SOLN.)	N/A

SECTION IV - FIRE AND EXPLOSION DATA			
FLASH POINT (TEST METHOD)	N/A		AUTOIGNITION TEMPERATURE
			N/A
FLAMMABLE LIMITS IN AIR, % BY VOL.	LOWER	N/A	UPPER
			N/A
EXTINGUISHING MEDIA	<input type="checkbox"/> WATER FOG <input type="checkbox"/> ALCOHOL FOAM <input checked="" type="checkbox"/> DRY CHEMICAL <input checked="" type="checkbox"/> FOAM <input checked="" type="checkbox"/> CO ₂ <input type="checkbox"/> OTHER		
SPECIAL FIRE FIGHTING PROCEDURES	Toxic vapors given off in fire. Wear full protective clothing and self contained air units. This product does not burn but is subject to thermal degradation by an independent fuel source.		
UNUSUAL FIRE AND EXPLOSION HAZARD	None		

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	See Section II
EFFECTS OF OVEREXPOSURE	Skin irritation: Due to physical nature of this product, oral and inhalation exposure unlikely. Nausea, Hyperthermia
EMERGENCY AND FIRST AID PROCEDURES	Skin: Wash thoroughly with soap and water.
	Oral: CALL A PHYSICIAN, induce vomiting unless unconscious.
	Inhalation: Remove to fresh air.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	High Moisture and free water.
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
Fire: HCL, Phenolics, Inorganic metals as Cr.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

N/A due to physical nature of product.

WASTE DISPOSAL METHOD

Dispose in accordance with all Federal, State and Local laws.

See Label; Do not contaminate water - toxic to fish. Bury in approved landfill.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Normally not necessary due to the physical nature of this product.

VENTILATION	LOCAL EXHAUST	X	SPECIAL	N/A
	MECHANICAL (General)	N/A	OTHER	N/A

PROTECTIVE GLOVES	Rubber gloves	EYE PROTECTION	Goggles are recommended, especially in windy conditions.
OTHER PROTECTIVE EQUIPMENT	N/A		

SECTION IX - SPECIAL PRECAUTIONS OR OTHER PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

SEE LABEL: Store in dry area as some actives are water soluble. When installing in inclement weather, keep product dry and use rubber gloves. See product Data Sheet.

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use or dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

TENINO WOOD PRESERVATIVES, INC.

7000 Highland Parkway S. W.
 Seattle, WA 98106
 (206) 762-4332

MATERIAL SAFETY DATA SHEET
TENINO GREEN F.O.

SECTION I. MATERIAL IDENTIFICATION			
TRADENAME: Tenino Green F. O. EPA REG. # 9630-15-54471 PRODUCT CLASS: Fungicide/Wood Preservative, NPCA HMIS: H1F2R0			
SECTION II. INGREDIENTS AND HAZARDS		% ± 5	TLV
COMPONENT	Cas #		
Copper Naphthenate	1338-02-9	19.0	1 mg/m3 as Copper (1)
Fuel Oil No. 2	68476-30-2	81.0	(2)
(1) OSHA, 29 CFR 1910.1000, Table Z-1 lists "Copper, dusts and mists" (2) NIOSH Criteria Document, "Kerosene (DHEW Publication 77-192)," 1977. PEL 100 mg/m3; 10 hours: STEL 1800 mg/m3, 15 minutes: ACGIH-TLV/TWA, 100 ppm 8 hrs.; TLV/STEL, 200 ppm, 15 minutes as Stoddard Solvent.			
SECTION III. PHYSICAL DATA			
Boiling Range: 325° - 768° F. Vapor Density: <input checked="" type="checkbox"/> Heavier <input type="checkbox"/> Lighter Evaporation Rate: <input type="checkbox"/> Faster <input checked="" type="checkbox"/> Slower than Ether Percentage Volatile by Volume: 81% Weight per Gallon: 7.4 LBS			
SECTION IV. FIRE AND EXPLOSION DATA			
FLASH POINT: Typically 155°F.		Classifications: OSHA: Combustible Liquid - Class II la DOT Shipping Name: Combustible Liquid, N. O. S. DOT Hazard Class: Combustible Liquid, NA 1993	
EXTINGUISHING MEDIA			
<input checked="" type="checkbox"/> FOAM <input type="checkbox"/> "ALCOHOL FOAM" <input checked="" type="checkbox"/> CO ₂ <input checked="" type="checkbox"/> DRY CHEMICAL <input checked="" type="checkbox"/> WATER FOG			
UNUSUAL FIRE AND EXPLOSION HAZARDS — MODERATELY COMBUSTIBLE			
Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. <small>When heated above the flash point, this material will release flammable vapors which if exposed to an ignition source can burn in the open or be explosive in confined spaces. Mists or sprays may be flammable at temperatures below flash point.</small> Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.			
SPECIAL FIRE FIGHTING PROCEDURES			
For fire involving this material: Do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of combustion products and oxygen deficiencies. Cool tanks and containers exposed to fire with water.			
SECTION V. REACTIVITY DATA			
Stable			
Incompatibility: Strong acids alkalis, and oxidizers such as liquid chlorine and oxygen. Hazardous Decomposition products: Carbon monoxide and other harmful gases/vapors including oxides and/or other compounds of sulphur.			

SECTION VI. HEALTH HAZARD INFORMATION (See Hazardous Ingredients Section above for TLV information)

EFFECTS OF OVEREXPOSURE FOR PRODUCT

Eyes: Mild eye irritation may result from contact with liquid, mist and/or vapors.
Skin: Absorption : No significant systemic effects are expected under conditions of anticipated use.
Irritation: This material is likely to be a moderate skin irritant. Irritation leading to dermatitis may result from prolonged or repeated exposures.
Breathing: Vapors or mists from this material can irritate the nose, throat, and lungs and can cause signs and symptoms of central nervous system depression, depending on the concentration and duration of exposure.
Swallowing: This material can irritate the mouth, throat, and stomach and cause nausea, vomiting, diarrhea and restlessness. Aspiration into the lungs can cause chemical pneumonitis which can be fatal.

FIRST AID

IF ON SKIN: Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use. Discard contaminated/saturated leather goods.
IF IN EYES: Flush with large amounts of low pressure water, lifting upper and lower lids occasionally. Get medical attention.
IF BREATHED: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet. Get medical attention.
IF SWALLOWED: Do not induce vomiting. Keep person warm, quiet and get medical attention. Aspiration of the material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Contain spill. Remove all ignition sources and safely stop flow of spill. Spill may create slipping hazards. Prevent from entering all water bodies, if possible. Evacuate all non-essential personnel. In urban areas, cleanup as soon as possible. In natural environments, cleanup on advice from ecologists. This material will float on water. Absorbant material and pads can be used. Comply with all applicable laws. spills may need to be reported to the National Response Center (800/424/8802). The spilled material and any water or soil which it has contacted may be hazardous to animal/aquatic life.

Waste product may have a flash point below 140° F. and must be treated as a Hazardous (RCRA IGNITABLE) waste. Maximize product recovery for reuse or recycling. Use approved treatment, transporters, and disposal sites in compliance with all applicable laws. If spill is introduced into a wastewater system, the chemical and biological oxygen demand will likely increase. Spill material is biodegradable if gradually exposed to microorganisms. Potential disposal methods included incineration and land disposal, if permitted.

Warning: Use of any hydrocarbon fuel in spaces without adequate ventilation may result in generation of hazardous levels of combustion products and inadequate oxygen levels for breathing.

SECTION VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: If TLV or the product or any component is exceeded, a NIOSH/MSHA jointly approved self contained breathing apparatus with a full facepiece operated in pressure demand or other positive pressure mode is advised; however, OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions. (See your safety equipment supplier.)

VENTILATION: Provide sufficient mechanical (general) and/or local exhaust ventilation to maintain exposure below TLVs.

GLOVES: Wear resistant gloves such as Neoprene.

EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type of safety glasses.

OTHER PROTECTIVE EQUIPMENT: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

SECTION IX. SPECIAL PRECAUTION AND COMMENTS

Empty drums retain combustible product residue. All precautions must be followed when empty. Do not use or store empty drum near heat, open flame, or welding torches.

The facts stated are based upon information believed to be accurate. No guarantee is made of data accuracy and Tenino Wood Preservatives, Inc. assumes no liability. No warranties of merchantability, fitness or otherwise are created. Tenino shall not be liable for special, incidental and consequential damages.

DATE:

7/3/86
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MATERIAL SAFETY DATA SHEET

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

H.M.I.S.

N.P.C.A.

Notice: The information herein is given in good faith but no warranty, express or implied, is made.

N/A = NOT APPLICABLE

N/D = NOT DETERMINED

SECTION I - PRODUCT IDENTIFICATION				
MANUFACTURER'S NAME: OSMOSE WOOD PRESERVING, INC.			EMERGENCY TELEPHONE NO.: (716) 882-5905	
ADDRESS: 980 ELLICOTT ST., BUFFALO, NY 14209			DATE FORM WRITTEN: 3/3/89	
TRADE NAME PATOX II			SYNONYMS N/A	
EPA REG. NO. 3008-52		SECTION II - HAZARDOUS INGREDIENTS'		
MATERIAL AND COMPONENT	CAS NO.	%	TLV (UNITS)	RQ
Sodium Fluoride	7681-49-4	70.6	2.5 g/M ³ as F	1000
CARCINOGEN?: NO				
D.O.T. CLASSIFICATION: ORM-B			D.O.T. LABEL: Sodium Fluoride, solid, ORM-B	
SECTION III - PHYSICAL DATA				UN 1690
BOILING POINT 760MM HG N/A		MELTING POINT 1818°F		
SPECIFIC GRAVITY (H ₂ O = 1) N/A		VAPOR PRESSURE N/A		
VAPOR DENSITY (AIR = 1) N/A		SOLUBILITY IN H ₂ O % BY WT. 4.4% AT 75°F		
% VOLATILES BY VOL. N/A		EVAPORATION RATE (BUYLY ACETATE = 1) N/A		
APPEARANCE AND ODOR Brown Bandage/odorless		Ph (AS IS) N/A	Ph (1% SOLN.) N/A	
SECTION IV - FIRE AND EXPLOSION DATA				
FLASH POINT (TEST METHOD) N/A		AUTOIGNITION TEMPERATURE N/A		
FLAMMABLE LIMITS IN AIR % BY VOL. N/A		LOWER N/A	UPPER N/A	
EXTINGUISHING MEDIA	<input checked="" type="checkbox"/> WATER FOG <input type="checkbox"/> ALCOHOL FOAM <input checked="" type="checkbox"/> DRY CHEMICAL <input checked="" type="checkbox"/> FOAM <input checked="" type="checkbox"/> CO ₂ <input type="checkbox"/> OTHER			
SPECIAL FIRE FIGHTING PROCEDURES	Toxic vapors given off in fire. Wear full protective clothing and self-contained breathing apparatus.			
UNUSUAL FIRE AND EXPLOSION HAZARD	May burn, but does not ignite readily.			

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SECTION V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	See Sec. II	OSHA TLV	See Sec. II	ALCGIH TLV	See Sec. II
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POTENTIAL ROUTES OF ENTRY AND EFFECTS OF EXPOSURE

Possible skin irritation.
Due to physical nature of this product, oral, eye and inhalation exposure unlikely.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

N/A

EMERGENCY AND FIRST AID PROCEDURES

SKIN: Remove contaminated clothing, wash thoroughly with soap and water.
ORAL: Drink 1 to 2 glasses of water and induce vomiting. Call a physician or Poison Control Center.
INHALATION: Move to fresh air. **EYES:** Flush with plenty of water. Call a physician.

SECTION VI — REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

N/A

INCOMPATIBILITY (Materials to avoid)

Acids

HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen fluoride

HAZARDOUS POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

N/A

SECTION VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

N/A - Due to physical nature of product.

WASTE DISPOSAL METHOD

Dispose in accordance with all Federal, State and Local laws. See label; Do not contaminate water - Toxic to Fish. Bury in approved landfill.

SECTION VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Normally not necessary due to physical nature of product.

VENTILATION

LOCAL EXHAUST Sufficient

SPECIAL N/A

MECHANICAL (General) N/A

OTHER N/A

PROTECTIVE GLOVES

Rubber Gloves

EYE PROTECTION

Goggles are recommended under windy conditions.

OTHER PROTECTIVE EQUIPMENT

N/A

SECTION IX — SPECIAL INSTRUCTIONS OR OTHER PRECAUTIONS

HYGIENIC PRACTICES IN HANDLING & STORAGE: Store in dry area. Do not store near open flames. Use good personal hygiene. Wash hands before eating or smoking and after work.

PRECAUTIONS FOR PROPER MAINTENANCE OF CONTAMINATED EQUIPMENT:

Read and follow label instructions.

See product label

MATERIAL
SAFETY
DATA
SHEET

K O P P E R S

MEDICAL EMERGENCIES: 1 800 553-5631
OUTSIDE U.S.A.: 412 227-2001
GENERAL INFORMATION: 412 227-2884

KOPPERS INDUSTRIES, INC.
436 SEVENTH AVENUE
PITTSBURGH, PA. 15219-1800

CHEMTREC ASSISTANCE 1 800 424-9300
CANUTEC: 1 613 996-6666

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: Coal Tar Creosote Treated Wood

COMMODITY NUMBER: 00000011

SYNONYM: None

PRODUCT USE: Treated Wood

CHEMICAL FAMILY: NA

FORMULA: Preserved wood

CAS NUMBER: None

DOT PROPER SHIPPING NAME: None

DOT HAZARD CLASS: None

UN/NA NUMBER: None

CANADIAN PRODUCT CLASSIFICATION: Wood product - exempted

SECTION II - HEALTH/SAFETY ALERT

CAUTION

HANDLING MAY CAUSE SPLINTERS

PRESERVATIVE TREATMENT MAY CAUSE EYE AND SKIN IRRITATION

OBSERVE GOOD HYGIENE AND SAFETY PRACTICES WHEN HANDLING THIS PRODUCT

DO NOT USE THIS PRODUCT UNTIL MSDS HAS BEEN READ AND UNDERSTOOD

WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF

CALIFORNIA TO CAUSE CANCER.

DO NOT BURN IN OPEN FIRES, STOVES, FIREPLACE OR RESIDENTIAL BOILERS.

SECTION III - HEALTH HAZARD INFORMATION

EYE: Treated or untreated wood dust or preservative may cause irritation.

SKIN: Transfer of preservative to skin can result in irritation which when accentuated by sunlight may result in a phototoxic skin reaction. See Section XII - Comments.

INHALATION: Finely divided wood dust, treated or untreated, may cause nose, throat or lung irritation and other respiratory effects. Preservative vapor may cause respiratory tract irritation. If exposed in a closed space, vapors may produce headache, drowsiness, and possible weakness and incoordination. See Section XII - COMMENTS.

INGESTION: Eating treated sawdust may cause mouth, throat and stomach irritation. Nausea, vomiting and diarrhea can occur.

REVISION DATE: 06/91

CODE NUMBER: WPR00008JU9110

SPECIFICATION SHEET NUMBER:

REPLACES SHEET: WPR00008AU8909

COMMODITY NUMBER: 00000011

SUPPLIER INFORMATION: Same as manufacturer.

SECTION IV - EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Gently flush any particles from the eye with large amounts of cold water. DO NOT RUB EYES. Flush with clean, cool water for 15 minutes.

SKIN CONTACT: Rinse skin free of material with water to avoid abrasion of skin. DO NOT RUB until skin is free of material then wash thoroughly with soap and water.

INHALATION: Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as indicated. Seek medical aid.

INGESTION: Wipe material from mouth and lips. If symptoms appear, seek medical aid.

NOTE TO PHYSICIAN: There is no specific antidote for effects from overexposure to this material. Treatment should be directed at the control of symptoms and the clinical conditions.

SECTION V - FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT & METHOD NA **AUTOIGNITION TEMP:** NA

FLAMMABLE LIMITS (% BY VOLUME/AIR): LOWER: NA UPPER: NA

TDG FLAMMABILITY CLASSIFICATION: None

EXTINGUISHING MEDIA: Use water stream/spray/fog. Use methods applicable to surrounding area.

FIRE-FIGHTING PROCEDURES: Wear complete fire service protective equipment, including full-face MSHA/NIOSH approved self-contained breathing apparatus. Use water to cool fire-exposed container/structure/protect personnel.

FIRE AND EXPLOSION HAZARDS: Dust may form explosive mixture with air. When heated (fire conditions), vapors/decomposition products may be released forming flammable/explosive mixtures in air. Under fire conditions, may emit irritant/toxic gas and/or fumes.

SENSITIVITY TO MECHANICAL IMPACT: ND

SENSITIVITY TO STATIC DISCHARGE: ND

SECTION VI - SPILL, LEAK AND DISPOSAL INFORMATION

SPILL OR LEAK PROCEDURES (PRODUCT): Not applicable

WASTE DISPOSAL: Dispose of treated wood by ordinary trash collection or burial. Treated wood should not be burned in open fires or in stoves, fireplaces or residential boilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be burned only in commercial or industrial incinerators or boilers in accordance with state and federal regulations.

SECTION VII - RECOMMENDED EXPOSURE LIMIT/HAZARDOUS INGREDIENTS

EXPOSURE LIMIT (PRODUCT): None established; See Ingredients. The ACGIH-TWA for respirable wood dust is 5.0 mg/m3 (stel 10.0 mg/m3) for softwoods and 1.0 mg/m3 for hardwoods.

*for coal tar pitch volatiles, OSHA-PEL and the ACGIH-TWA is 0.2 mg/m3 (8Hr TWA), benzene soluble fraction.

**based on treatment at a level of 7 lbs/ft2 and wood density of 40 lbs/ft3 - actual percentage may vary due to differences in woodstock and treatment

Less than 0.1 % coal tar is added to this product

HAZARDOUS INGREDIENTS	CAS NUMBER	%BY WT.	EXPOSURE LIMIT (PPM;MG/M3)
Creosote	8001-58-9	<15**	*
Wood dust (certain hardwood such as beech & oak)-			ACGIH-TLV - 1 proposed:
			OSHA-PEL - 1
			OSHA-TWA - 5
			OSHA-STEL - 10
(soft wood)			proposed:
			OSHA-PEL - 5
			OSHA-STEL - 10
			ACGIH-TWA - 5
			ACGIH-STEL - 10
			OSHA-TWA - 5
			OSHA-STEL - 10

SECTION VIII - PERSONAL PROTECTION INFORMATION

EYE PROTECTION: Industrial safety glasses, minimum. As necessary to comply with 29 CFR 1910.133 and work area conditions: use side shields, goggles or face shield. When power-sawing and machining, wear goggles.

SKIN PROTECTION: Industrial type resistant (eg. vinyl coated) heavy duty-type flexible gloves required for prolonged or frequent contact. For dusty operations (areas) wear necessary resistant protective apparel to include required head, hand and safety-type footwear. Wear tightly woven coveralls or long sleeved shirts and long pants.

RESPIRATORY PROTECTION: Not normally required except when handling procedure(s) generate dust.If ventilation does not maintain inhalation exposures below PEL(TLV), use MSHA/NIOSH approved units as per current 29 CFR 1910.134, If within OSHA protection factor, air purifying OV/filter units OK.

VENTILATION: Ventilation necessary only if material handling generates dust. Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and areas below explosive dust concentrations.

SECTION IX - PERSONAL HANDLING INSTRUCTIONS

HANDLING: Avoid frequent or prolonged contact with the skin or inhalation of treated wood dusts. Avoid prolonged or repeated contact with skin or eyes. Do not wear contaminated clothing. Launder separately from household clothing

before reuse, or discard. When sawing and machining treated wood, wear a dust mask.

STORAGE: No special storage is required.

OTHER: If oily preservatives/sawdust soil clothes, launder before reuse. Urethane/epoxy/shellac are acceptable sealers for creosote treated wood. Whenever possible, sawing/machining treated wood should be performed outdoors to avoid accumulations of airborne treated wood sawdust. Coal tar pitch and coal tar pitch emulsions are effective sealers for creosote treated wood block flooring.

SECTION X - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: Stable under normal conditions,

INCOMPATIBILITY: Strong acids, open flame.

HAZARDOUS REACTIONS/DECOMPOSITION/COMBUSTION PRODUCTS: Combustion products include carbon monoxide, oxides of nitrogen.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: None
-----SECTION XI - PHYSICAL DATA

BOILING POINT: NA

SPECIFIC GRAVITY: > Untreated wood

MELTING POINT: NA

% VOLATILE BY VOL: NA

VAPOR PRESSURE: NA

EVAPORATION RATE(ETHER=1): NA

VAPOR DENSITY(AIR=1):NA

VISCOSITY: NA

SOLUBILITY NA
(WATER):

pH: NA

VOC: NA

COEFFICIENT OF WATER/OIL DISTRIBUTION: ND

APPEARANCE/ODOR: Treatment imparts a dark brown-to-black color with tarry odor.
-----SECTION XII - COMMENTS

Persons with pre-existing disease in or a history of ailments involving the skin or respiratory tract may be at a greater than normal risk of developing adverse health effects from woodworking operations with this product.

UNTREATED WOOD DUST OR SAWDUST: The principal health effects reported from occupational exposure to sawdust or wood dust generated from untreated wood are dermatitis, rhinitis, conjunctivitis, reduced or suppressed mucociliary clearance rates, chronic obstructive lung changes, and nasal sinus cancer. Skin and respiratory sensitization have been reported from exposure to hardwood dust.

Epidemiological studies have been reported on carcinogenic risks of employment in the furniture-making industry, the carpentry industry, and the lumber and sawmill industry. IARC has reviewed these studies and reports that there is sufficient evidence that nasal carcinomas have been caused by employment in the furniture-making industry where the excess risk is associated with exposure to untreated wood dust or sawdust from hardwood species. IARC concluded that epidemiological data are not sufficient to make a definite assessment of the carcinogenic risks of employment as a carpenter or worker in a lumbermill or sawmill.

CREOSOTE PRESERVATIVE: The IARC monographs (Vol 35) state that there is sufficient evidence for the carcinogenicity of creosote in experimental animals. The NTP Annual Report on Carcinogens states that creosote oils are carcinogenic in experimental animals. Creosote does not appear in the OSHA Subpart Z Table.

Epidemiological studies of workers in the woodtreating industry have

shown no significant health effects due to occupational exposure to creosote. The application of a commercially available sun-blocking lotion is recommended to greatly reduce the phototoxicity of coal tar associated sun burning. The lotion should be applied prior to the application of the barrier cream and should have a sun protection factor (SPF) greater than 15. Application of barrier creams, i.e., Ply 9 Gel, Fend A-2 Cream, Kerodex 51 to prevent coal tar containing products from contacting skin before working/several times during work may be beneficial.

Showering and clothing change recommended at the end of each shift.

No known ingredients which occur at greater than 0.1%, other than those listed above, are listed as a carcinogen in the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, the NTP Annual Report on Carcinogens or OSHA 29 CFR 1910.1001-1047 subpart Z Toxic and Hazardous Substances (Specifically Regulated Substances).

SKIN PROTECTION (protective material): Permeation/degradation values of chemical mixtures cannot be predicted from pure components or chemical classes.

Thus, these materials are normally best estimates based on available pure component data. A significant difference in chemical breakthrough time has been reported for generically similar gloves from different manufacturers (AIHA J., 48, 941-947 1987).

Do not use until Consumer Information Sheet is read and understood. Wash exposed areas promptly and thoroughly after skin contact from working with this product and before eating, drinking, using tobacco products or rest rooms.

Do not wear contact lens without proper eye protection when using this product.

Prepared By: Occupational Health and Product Safety Department

NOTICE: While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Koppers Industries makes no warranty with respect thereto and disclaims all liability from reliance thereon.