MATERIAL SAFETY DATA

KOPPERS

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: Pentachlorophenol Treated Wood

COMMODITY NUMBER: 00000034

SYNONYM: None

SHEET

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: Exempted - wood product

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: Prolonged and/or repeated direct contact with treated or untreated wood may cause mild, transient irritation. See Section XII for additional information.

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.

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

REVISION DATE: 06/91

CODE NUMBER: WPR00097JU9109
REPLACES SHEET: WPR00097JL8908

SPECIFICATION SHEET NUMBER: COMMODITY NUMBER: 00000034

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 condition.

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.

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 (powder) may form explosive mixture in air. When heated (fire conditions), vapors/decomposition products may be released forming flammable/explosive mixtures in air.

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): *(hard wood dust)

**(soft wood dust)

***Based on treatment at a level of 0.6 lbs/ft3 and wood density of 36 lbs/ft3 actual percentage may vary due to differences in wood stock treatment.

HAZARDOUS INGREDIENTS	CAS NUMBER	%BY WT.	EXPOSURE LIMIT	(PPM;MG/M3)				

Pentachlorophenol	87-86-5	<0.01	ACGIH-TWA	_	0.5skin
			OSHA-PEL	_	0.5skin
			OSHA-TWA		0.5
Fuel Oil	68476-34-6	<0.02	ACGIH-TWA	_	5
			ACGIH-STEL	_	10
Wood		>99.9	ACGIH-TWA	_	1*
				_	5**
			ACGIH-STEL	_	10**

----- SARA TITLE III SECTION 313 CHEMICALS ----- (SEE SECTION VII FOR CAS NUMBERS AND PERCENTAGES)

Pentachlorophenol

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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 resistant 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 items. Wear tightly woven coveralls or long sleeved shirts and long pants.

RESPIRATORY PROTECTION: When existing conditions, OSHA regulations, and manufacturer "Instructions" and "Warnings" permit, Organic vapor/acid gas cartridges or canisters may be used. When sawing or machining treated wood, wear a MSHA/NIOSH approved dustmask (TC-21C).

VENTILATION: Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and areas below explosive dust concentrations.

CECHION IV DEDCOMAL HANDLING INGERVICETORS

SECTION IX - PERSONAL HANDLING INSTRUCTIONS

HANDLING: Avoid prolonged or repeated contact with skin or breathing of dusts. Observe good personal hygiene practices and recommended procedures. Avoid prolonged or repeated contact with skin or eyes. Do not wear contaminated clothing. Launder separately from household clothing before reuse, or discard.

STORAGE: No special storage is required.

OTHER: Showering and clothing change recommended at the end of each shift. If oily preservatives/sawdust soil clothes, launder before reuse. Urethane,

shellac, latex epoxy enamel, and varnish are acceptable sealers for pentachlorophenol-treated wood. Whenever possible, sawing/machining treated wood should be performed outdoors to avoid accumulations of airborne treated wood sawdust.

SECTION X - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: Stable under normal conditions.

INCOMPATABILITY: Open flame.

HAZARDOUS REACTIONS/DECOMPOSITION/COMBUSTION PRODUCTS: Combustion of this product may produce/release chlorinated dibenzodioxins and dibenzofurans.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: None

SECTION XI - PHYSICAL DATA

BOILING POINT: NA SPECIFIC GRAVITY: NA

MELTING POINT: NA % VOLATILE BY VOL: NA

VAPOR PRESSURE: NA EVAPORATION RATE(ETHER=1): NA

VAPOR DENSITY(AIR=1):NA VISCOSITY: NA

SOLUBILITY NA

pH: NA (WATER):

VOC: ND

COEFFICIENT OF WATER/OIL DISTRIBUTION: ND

APPEARANCE/ODOR: Light tan to brown wood with fuel oil odor.

SECTION XII - COMMENTS

Persons with pre-existing disease in or a history of ailments involving the skin, liver, eye, 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. PENTACHLOROPHENOL PRESERVATIVE: Volume 41 of the IARC Monographs states that there is limited evidence for the carcinogenicity of occupational exposure to chlorophenols including pentachlorophenol. Pentachlorophenol is fetotoxic, causing delay in the development of laboratory animal embryos and reducing litter size. Pentachlorophenol appears in OSHA Subpart Z Table but not in the NTP Annual Report on Carcinogens. Pentachlorophenol may contain as contaminants other chlorinated phenols and

chlorinated dibenzofurans and dibenzodioxins. Fuel oil has been shown to produce tumor formation in laboratory animals following long-term application. Epidemiological studies of workers in the woodtreating industry have shown no significant health effects due to occupational exposure to pentachlorophenol preservative.

May be absorbed through the skin including mucous membranes and eye either by airborne mist, or more particularly, by direct contact. Skin contact should be avoided. To the extent necessary, the use of gloves, coveralls, goggles or other appropriate personal protective equipment, engineering controls or work practices should be utilized to prevent or reduce skin absorption.

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

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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.