

SAFETY DATA SHEET

PENTACHLOROPHENOL TREATED WOOD

PLEASE NOTE THIS INFORMATION IS BASED ON THE MATERIAL USED TO TREAT THE WOOD AND INCLUDES HAZARDS ASSOCIATED WITH WOOD DUST GENERATED FROM SAWING, SANDING, ROUTING, OR CHIPPING. THESE HAZARDS ARE ESSENTIALLY THE SAME AS UNTREATED WOOD.

SECTION 1 – IDENTIFICATION

CHEMICAL NAME:	PENTACHLOROPHENOL TREATED WOOD
PRODUCT USE:	LUMBER, POLES, CROSS-ARMS
MANUFACTURER INFORMATION:	Permapost Products Company, Inc. 4205 SE WITCH HAZEL ROAD P.O. Box 100 Hillsboro, OR 97123
MANUFACTURER TELEPHONE:	503.648.4156
EMERGENCY TELEPHONE:	CHEMTREC: 1-800-424-9300

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. A non-emergency questions should be directed to manufacturer customer service.

SECTION 2 – HAZARDS IDENTIFICATION



Signal Word: DANGER, Wood dust may form an explosive mixture with air. Wood dust may cause irritation to the eyes, skin, and respiratory tract. Exposure to pentachlorophenol may cause health hazards described below.

Hazard Statement(s):

- Causes skin irritation or allergic skin reaction
- Causes eye irritation
- May cause respiratory irritation, allergy or asthma symptoms or breathing difficulties, if inhaled
- May cause cancer
- May damage fertility to the unborn child
- May form combustible dust concentrations in air

Classification in accordance with 29 CFR 1910.1200

- Combustible Dust
- Skin Corrosion / Irritation, Category 2
- Eye Damage / Irritation, Category 2A
- Respiratory sensitizer, Category 1
- Skin sensitizer, Category 1
- Carcinogenicity, Category 1A
- Toxic to Reproduction, Category 1B
- Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory tract)

ROUTES OF ENTRY:

1. **INHALATION:** Poor hygiene while smoking, inhalation of sawdust.
2. **EYES:** Flying sawdust, transfer from hands to eyes.
3. **SKIN:** Absorbed readily through unprotected skin.
4. **INGESTION:** Eating or drinking without proper hygiene.

POTENTIAL HEALTH EFFECTS: EYES Contact with eyes can cause severe irritation, redness, tearing, and blurred vision.

POTENTIAL HEALTH EFFECTS: SKIN Pentachlorophenol may be readily absorbed through the skin. Prolonged or repeated contact with skin can cause severe irritation or dermatitis.

POTENTIAL HEALTH EFFECTS: INGESTION Eating treated sawdust may cause mouth, throat and stomach irritation.

POTENTIAL HEALTH EFFECTS: INHALATION Inhaled wood dust may be irritating to nose and throat. Can cause chest pains and chemical pneumonitis.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Kidney or liver disease, bronchitis, asthma, rashes, acne, some venereal diseases.

SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>% Range</u>
PENTACHLOROPHENOL, Technical	87-86-5	0.5mg/m ³	0.5mg/m ³	<0.01%
PETROLEUM SOLVENTS	N/A	100 ppm	100 ppm	<0.02% See note*
Wood/Wood dust	Not Available	50 mg/m ³	2.5 mg/m ³	99-100%

**Residual hydrocarbon solvent may result in detectable odors. The odor level is influenced by the amount of solvent remaining in the wood and the type of solvent used as a preservative carrier.*

This product is considered hazardous under the criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard) and the Canadian Workplace Hazardous Materials Information System (WHMIS)

SECTION 4 – FIRST AID MEASURES

1. **INHALATION:** 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.
2. **EYE CONTACT:** If wood fibers are in the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eye lids. Have victim "roll" eyes. Do not rub eyes. Minimum flushing is for 15 minutes. Seek medical attention, especially if splintering occurs in the eye.
3. **SKIN CONTACT:** Thoroughly wash exposed area with soap and water. Do not rub skin until free of sawdust and preservative material. Remove contaminated clothing. Launder contaminated clothing before re-use.
4. **INGESTION:** If treated wood is swallowed, call physician or poison control center. Vomiting should only be induced by a Physician. Seek medical advice or attention immediately.

NOTE TO PHYSICIAN: Pentachlorophenol is a metabolic stimulant. Treatment is supportive. Force diuresis may be effective to reduce total body burden. Do not administer aspirin, phenothiazines, or atropine since they may enhance toxicity.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT:	N/A	<u>NFPA CODES</u>	HEALTH:	2
METHOD:	N/A		FLAMMABILITY:	1
FLAMMABLE LIMITS IN AIR (%):	N/A		REACTIVITY:	0
AUTOIGNITION TEMPERATURE:	N/A		OTHER:	N/A

EXTINGUISHER MEDIA: Water spray.

SPECIAL FIRE FIGHTING PROCEDURES: Toxic gas and ash are generated on combustion. Fire fighters should wear self-contained breathing apparatus (SCBA) and full fire-fighting protective gear. If possible, prevent runoff from entering the storm drains, bodies of water or other environmentally sensitive areas.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Generates Hydrochloric Acid on combustion.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Pentachlorophenol treated wood is unlikely to be involved in a release or spill because the pentachlorophenol chemical is fixed in the wood. If pentachlorophenol treated wood or chemical is released, follow the instructions below.

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Collect debris and used material in appropriate container for disposal. Airborne material may form explosive dust-air mixtures. Wet down area with water. Avoid generating dust. Avoid accumulation of airborne dusts. Sweep and scoop spilled material into clean, dedicated equipment. Clean up residue with vacuum. Keep unnecessary people away, isolate hazard area and deny entry

SECTION 7 – HANDLING AND STORAGE

DO NOT BURN TREATED WOOD.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Pentachlorophenol Treated Wood must be dry and odor free before using in construction. After treatment and prior to use, place treated material in well ventilated area or "open area" environment, protect from the elements, and stack so that air circulates around each piece until dry and odor free.

Follow good hygienic and housekeeping practices. Clean-up areas where wood dust settles to avoid excessive accumulation of this combustible material. Minimize practices that generate airborne dust. When possible, conduct dust-generating activities outdoors to avoid indoor accumulations of airborne dust from treated wood. Avoid prolonged or repeated skin contact with this material. Do not breathe dust. When handling treated wood, wear washable or disposable coveralls or long-sleeved shirt and long pants, chemical resistant gloves, and socks plus industrial grade safety boots. Wear protective eye/face protection. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Treated wood is intended for exterior/outdoor uses only.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in accordance with all current regulations and standards. Store outdoors. Keep in a cool, dry place away from open flame.
Incompatibilities: strong acids. Do not allow vapors to collect in closed spaces (especially working or living areas) during the drying process. Do not breathe vapors of freshly treated wood. Do not install in enclosed or interior areas.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION: Not required under normal use conditions. When sawing or machining treated wood, wear a MSHA/NIOSH approved high efficiency dust filter respirator.

VENTILATION REQUIREMENTS: Provide sufficient exhaust ventilation to control inhalation exposures below exposure limits and areas below explosive dust concentration. Whenever possible, these operations should be performed outdoors.

PROTECTIVE GLOVES: Use appropriate gloves. When handling freshly “treated” wet wood use neoprene or nitrile rubber gloves. Check gloves for leaks. When handling dry wood use leather or heavy cotton gloves to avoid splinters. Wash hands after removing gloves.

OTHER PROTECTIVE CLOTHING AND EQUIPMENT: Use body protection appropriate for task. Chemically protective clothing made from vinyl, neoprene, or nitrile rubber is generally acceptable during the treating process and handling freshly treated lumber.

WORK/HYGIENIC PRACTICES: After working with treated wood, and before eating, drinking, and use of tobacco products, wash hands and other exposed areas thoroughly. Good personal hygiene should be observed. Launder clothing contaminated with sawdust prior to re-use.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Pentachlorophenol treated wood has tan to dark brown color. Petroleum odor.

BOILING POINT (INITIAL)(F/C):	N/A	% VOC CONTENT BY WEIGHT:	N/A
VAPOR PRESSURE (mmHg):	N/A	SPECIFIC GRAVITY (H2O=1):	0.9
DENSITY:	N/A	pH:	N/A
EVAPORATION RATE (nBuAC=1):	N/A	FREEZING POINT:	N/A
VAPOR DENSITY (AIR=1):	N/A	MELTING POINT:	N/A
REACTIVITY IN WATER:	NIL	SOLUBILITY IN WATER:	Wood fiber – insoluble
SOLUBILITY IN WATER: Pentachlorophenol – 14 ppm @ 20°C			

SECTION 10 – STABILITY & REACTIVITY

STABLE UNDER NORMAL CONDITIONS OF HANDLING AND STORAGE (Y/N)? Y

CONDITIONS TO AVOID (REGARDING STABILITY): Incompatible with extreme heat and open flames.

INCOMPATIBILITY (MATERIALS TO AVOID): Hydrogen chloride, chlorine, and chlorinated compounds.

HAZARDOUS POLYMERIZATION POSSIBLE (Y/N): N, Will not occur.

HAZARDOUSE DECOMPOSITION PRODUCTS: Hydrogen chloride gas.

SECTION 11 – TOXICOLOGICAL INFORMATION

SIGNS AND SYMPTOMS OF ACUTE OVEREXPOSURE: If inhaled, concentrations of 0.3 mg/M3 pentachlorophenol can cause nose irritation. Concentrations in excess of 1 mg/M3 can cause upper respiratory irritation with sneezing and coughing. Wood dust can cause irritation of the nose and throat. Contact with eyes: pentachlorophenol can cause irritation of the eyes @ 1mg/M3. Prolonged exposure can cause reversible corneal damage. Wood dust can also cause irritation of the eyes. Symptoms of the unlikely ingestion of pentachlorophenol treated wood include rapid heart rate and respiration, elevated temperature and blood pressure, muscular weakness, excessive sweating, dizziness, and/or nausea.

CHRONIC OVEREXPOSURE:

Wood Dust: 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.

Pentachlorophenol: Pentachlorophenol has been found to have toxic effects in laboratory animals. This finding may also indicate human toxicity. Exposure to treated wood should be kept to a minimum. Overexposure to pentachlorophenol could result in injury, illness, or even possibly death. Overexposure to pentachlorophenol has caused liver and kidney toxicity in laboratory animals.

Carcinogenicity: Pentachlorophenol has been evaluated for possible cancer causation in laboratory animals. Male and female mice evaluated by the National Toxicology Program were fed up to 400 ppM Technical penta, and up to 600 ppM purified penta 5 days a week for 106 weeks. A statistically significant increase in liver and endocrine tumors had occurred in the male mice, while an increase in vascular tumors occurred in the female mice. The female mice also had an increase in liver tumors when fed the highest dose of purified penta. Rats ingesting 30 mg/kg/day for 2 years, along with 2 strains of mice ingesting 46.4 mg/kg/day for 2 years, did not show any increased incidence of tumors. Pentachlorophenol, 2,3,4,6-Tetrachlorophenol, and Hydroxypolychlorodibenzo ethers are not listed on the IARC, NTP, or OSHA carcinogen lists.

Note: Pentachlorophenol contains trace amounts of Hexa, Hepta, and Octachlorodibenzo-p-dioxins, Hexa, Hepta, and Octachlorodibenzofurans, and Hexachlorobenzene. The State of California has listed Hexachlorodibenzo-p-dioxin and Hexachlorobenzene as chemicals known to cause cancer.

Reproductive Toxicity: The U.S. EPA has determined that pentachlorophenol can cause defects on the offspring of laboratory animals. Exposure to pentachlorophenol during pregnancy should be avoided. Reproductive toxicity tests have been conducted to evaluate the potential adverse effects of pentachlorophenol on the reproduction of laboratory animals. Pentachlorophenol has been found to be embryo and fetotoxic to rats, but not to hamsters. Pentachlorophenol did not cause teratogenic effects (birth defects), but did cause delays to normal fetal development.

SECTION 12 - ECOLOGICAL INFORMATION

GENERAL PRODUCT INFORMATION: This product is not expected to leach harmful amounts of preservatives into the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by the handling, may be disposed through licensed sanitary landfill facilities. Treated wood should not be burned in open fires or in stoves, fireplaces, or residential boilers.

SECTION 14 – TRANSPORTATION INFORMATION

US DOT Information - Not regulated.

US DOT Reportable Quantities: Pentachlorophenol (87-86-5) - 10 lbs RQ; 4.54 kg RQ

Canadian shipping requirements – Not regulated as a hazardous material for transportation.

TDG Information - Not regulated

SECTION 15 – REGULATORY INFORMATION

U.S. Federal Regulations - This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Pentachlorophenol (87-86-5)

SARA 313: 0.1 % de minimis concentration

CERCLA: 10 lb final RQ; 4.54 kg final RQ

SARA 311/312 Hazardous Categories: Acute Health: Yes, Chronic Health: Yes, Fire: No, Pressure: No, Reactive: No

U.S. State Regulations; The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Wood/Wood Dust (related to: Wood dust, all soft and hard woods) (?related to: Wood dusts-hard wood)	Not Available	No	No	Yes ¹	Yes ¹	Yes ²
Pentachlorophenol	87-86-5	Yes	Yes	Yes	Yes	Yes

The chemicals in this product are covered under specific state regulations:

California: Workplace Airborne Contaminants
Illinois: Toxic Substances Disclosure

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): **WARNING!** This product contains a chemical known to the state of California to cause cancer.

Canada: WHMIS CLASSIFICATION: D2A, D2B.

LABELING (PRECAUTIONARY STATEMENT): Handle in a well ventilated area. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

SECTION 16 – OTHER INFORMATION

Pentachlorophenol Treated Wood should be used only for exterior applications.

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N/A = Not Applicable

DISCLAIMER: Manufacturer gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Manufacturer expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Safety Data Sheet before handling product.

END OF SAFETY DATA SHEET