



PRODUCT NAME: Pentachlorophenol Pressure Treated Wood/Poles/Piling

1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY: Koppers Utility & Industrial Products P.O. Box 1124 Orangeburg, SC 29116 (803) 534-7467	DESCRIPTION/USE: Restricted Use Treated Wood Products EMERGENCY NUMBER: 800-424-9300 (CHEMTREC) SYNONYMS: Pentachlorophenol Treated Materials, Poles, Pilings, and Posts
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2. HAZARDS IDENTIFICATION

	<p>DANGER!</p> <p>Treated and untreated wood dust are classified as: carcinogenic, possible respiratory and skin sensitizer.</p> <p>If mixed with air in the presence of an ignition source, <i>sawing, sanding or machining</i> material may generate a dust that could be a potential explosion hazard.</p>	
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	Hazard Statements	Category
Physical Hazards:	None	
Skin Irritation:	Causes mild skin irritation	3
Eye Irritation:	Treated and untreated wood dust causes eye irritation	2B
Respiratory Sensitization:	Treated and untreated wood dust may cause allergy or asthma symptoms or breathing difficulties if inhaled	1
Skin Sensitization:	May cause an allergic skin reaction due to prolonged and/or repeated contact with treated or untreated wood dust. <i>(Various species of untreated wood dust can elicit allergic type skin irritation in sensitized persons.)</i>	1
Carcinogenicity:	May cause cancer due to long term inhalation of treated or untreated wood dust above threshold limits	1A
Specific Target Organ Toxicity (Single Exposure):	May cause respiratory irritation	3

Precautionary Statements - Prevention

- Do not cut or machine wood (generate wood dust) until all safety precautions have been read and understood.
- Wear protective gloves, long sleeve shirt and pants when handling treated or untreated wood.
- Wash face, hands and any exposed skin thoroughly after handling and before eating, drinking or using the restroom
- Contaminated work clothing should not be allowed out of the workplace
- Cut or machine treated/untreated wood only outdoors or in a well-ventilated area
- Avoid breathing dust when cutting or machining wood
- In case of inadequate ventilation and levels exceed the recommended exposure limits, wear a NIOSH approved P95 or better particulate filter respirator

2. HAZARDS IDENTIFICATION CONT'D
Precautionary Statements - Response

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical attention.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms or feeling unwell, call physician or Poison Control Center
- IF ON SKIN: Wash with plenty of water
- If skin irritation or rash occurs, get medical attention.
- IF exposed or concerned: Get medical attention.
- Take off contaminated clothing and wash it before reuse.

Precautionary Statements – Storage

- None

Precautionary Statements – Disposal

- Dispose of material in accordance with local, state and federal regulations

Other

- If mixed with air in the presence of an ignition source, sawing, sanding or machining wood may form explosible dust-air mixture if dispersed
- Acute Target Organ Toxicity: Skin, Eyes, Respiratory tract
- Chronic Target Organ Toxicity: Kidney, Liver, Lungs, Lymphatic System, Respiratory system
- Diesel fuel may cause nose, throat, or lung irritation, drowsiness, dizziness, and loss of coordination.
- Causes mild skin irritation (Prolonged and/or repeated contact with treated or untreated wood dust. *Various species of untreated wood dust can elicit allergic type skin irritation in sensitized persons.*)
- Odor: Fuel oil type odor Physical State: solid

Immediate (Acute) Health Effects

- Inhalation:** Airborne treated or untreated wood dust may cause nose, throat or lung irritation. Avoid breathing dust when cutting or machining wood. Diesel fuel may cause nose, throat, or lung irritation, drowsiness, dizziness, and loss of coordination. Wear respiratory protection if needed.
- Eye Contact:** Treated or untreated wood dust may cause eye irritation. Diesel fuel may cause eye irritation. Wear Protective eyewear.
- Skin Contact:** Handling wood may result in skin exposure to splinters. Diesel fuel may cause skin irritation. Wear protective gloves and clothing.
- Ingestion:** Not anticipated to occur. A single ingestion of a very large dose of treated wood dust may require immediate medical attention.

Acute Target

- Organ Toxicity:** Skin, Eyes, Respiratory tract

Prolonged (Chronic) Health Effects

- Carcinogenicity:** **Carcinogenicity Data:** IARC has classified untreated hardwood and hardwood/softwood mix wood dust as a Group 1 human carcinogen. The wood dust classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and para-nasal sinuses associated with occupational exposures to untreated wood dust. NTP has classified all untreated wood dust as a carcinogen.

Pentachlorophenol is possibly carcinogenic to humans (IARC Group 2B).

2. HAZARDS IDENTIFICATION CONT'D
Prolonged (Chronic) Health Effects Cont'd

Chronic Wood Dust Effects: Various species of untreated wood dust can elicit allergic respiratory and skin responses in sensitized persons.

Chronic Target Organ Toxicity: Kidney, Liver, Lungs, Lymphatic System, Respiratory system

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	PERCENT ¹
Pentachlorophenol (Skin)*	87-86-5	<0.6
Diesel Fuel	68334-30-5	<3.0
Wood	N/A	>90

Notes: Actual retention may vary due to differences in wood stock and treatment retention levels.

4. FIRST AID MEASURES

Inhalation: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops or persists. If not breathing, give artificial respiration and call for medical assistance.

Skin Contact: Wash skin with soap and water. Take off all contaminated clothing. Seek medical advice or attention if irritation persists.

Eye Contact: Flush eyes with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eyes open while flushing. Seek medical advice or attention if irritation develops. **DO NOT RUB.**

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious rinse the individual's mouth out with water. Seek medical advice or attention immediately. *See Section 11 for more toxicological information. Note to Physicians: 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.*

5. FIRE FIGHTING MEASURES

Flammability Summary: Product is not known to be flammable, combustible, pyrophoric or explosive.

Fire / Explosion Hazards: If the product is involved in a fire, toxic smokes could develop. Dust may be a potential explosion hazard if mixed with air in the presence of an ignition source.

Extinguishing Media: Water spray, Carbon Dioxide, regular dry chemical or foam.

Fire Fighting Instructions: In case of fire, use normal fire-fighting equipment and personal protective equipment including a NIOSH approved self-contained breathing apparatus (SCBA, pressure-demand).

Hazardous Combustion Products: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Combustion products may produce/release chlorinated dibenzodioxins and dibenzofurans.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: No extra protection required beyond that listed in Section 8. In case of fire, use normal fire-fighting equipment and personal protective equipment including a NIOSH approved self-contained breathing apparatus (SCBA, pressure-demand).

Spill or Leak Procedures: Not applicable

Waste Disposal: See Section 13.

7. HANDLING AND STORAGE

Handling: DO NOT BURN TREATED WOOD. Whenever possible, sawing or machining treated or untreated wood should be performed outdoors to avoid accumulations of airborne wood dust. Do not use treated chips or sawdust as mulch. Wash hands thoroughly before eating, drinking, using tobacco products, and/or using restrooms. Due to the explosive potential of dust when suspended in air, precautions should be taken when sawing, sanding, or machining wood or wood products to prevent sparks or other ignition sources. Refer to NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*.

Storage: Keep away from unguarded flame, sparks, and heat sources. Protect from physical damage. Maintain good housekeeping.

Incompatible Materials: Oxidizers, strong acids and bases

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	EXPOSURE LIMITS		
	ACGIH-TLV	OSHA-PEL	NIOSH
Pentachlorophenol (Skin)	0.5 mg/m ³	0.5 mg/m ³	0.5 mg/m ³
Diesel Fuel (As Naphthalene 91-20-3)	10 ppm	50 mg/m ³	50 mg/m ³
Wood Dust ¹	1.0 mg/m ³ inhalable fraction 0.5 mg/m ³ Inhalable fraction (Western Red Cedar)	15 mg/m ³ total dust 5.0 mg/m ³ respirable fraction	1 mg/m ³

¹A state-run OSHA program may have more stringent limits for wood dust and/or PNOR.
IDLH means Immediately Dangerous to Life or Health STEL means Short term exposure limit

Protective Equipment for Routine Use of Product

Respiratory: Wear a NIOSH approved P95 or better particulate filter respirator if wood dust levels exceed the recommended exposure limits.

Skin Protection : Wear leather/chemical gloves, long sleeve shirt, pants, and steel-toed shoes when handling treated or untreated wood. Examples of acceptable materials for protective clothing for handling of pentachlorophenol are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene, NBR (Buna-N), and nitrile.

Eye Protection: Use safety glasses with side shields or debris goggles when sawing or cutting material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION CONT'D

General: Due to the explosive potential of dust when suspended in air, precautions should be taken when sawing, sanding, or machining wood or wood products to prevent sparks or other ignition sources. Refer to NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*.

Wash hands thoroughly before eating, drinking, using tobacco products, and/or using restrooms. Keep away from food, drink and animal feed stuffs. Regular cleaning of equipment, area and clothing is recommended.

Whenever possible, sawing or machining treated or untreated wood should be performed outdoors or in well ventilated areas to avoid accumulations of airborne wood dust. Ventilation should be sufficient to maintain exposures below the recommended exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid lumber, poles, piling or posts	Conditions to Avoid:	Sparks, open flame
Color/Odor:	Light tan to brown. Fuel oil odor	Chemical Incompatibility:	Strong acids, bases, oxidizers
Oxidizing:	No Oxidizing Properties	Hazardous decomposition:	During a fire, irritating and toxic gases may be generated

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary: Stable under normal conditions. Product will not undergo hazardous reactions during normal processing.

Conditions to Avoid: Sparks, open flame, other ignition sources, and elevated temperatures., Contact with incompatible substances

Chemical Incompatibility: strong acids, oxidizers

Hazardous Decomposition Products: During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion. Combustion products may produce/release chlorinated dibenzodioxins and dibenzofurans.

11. TOXICOLOGICAL INFORMATION

Inhalation: Airborne treated or untreated wood dust may cause nose, throat or lung irritation. (*Various species of untreated wood dust can elicit allergic respiratory response in sensitized persons.*) Diesel fuel may cause nose, throat, or lung irritation, drowsiness, dizziness, and loss of coordination.

Eye Contact: Treated or untreated wood dust may cause eye irritation. Diesel fuel may cause eye irritation.

Skin Contact: Prolonged and/or repeated contact with treated or untreated wood dust may result in skin irritation. (*Various species of untreated wood dust can elicit allergic type skin irritation in sensitized persons.*) Petroleum Distillates may cause skin irritation.

Ingestion: Not anticipated to occur. Harmful if swallowed.

Target Organ Effects: Eyes, kidney, liver, lungs, Lymphatic System, Respiratory system, skin.

11. TOXICOLOGICAL INFORMATION CONT'D

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.

Carcinogenic status: 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, litter size. Pentachlorophenol appears in OSHA Subpart Z Table but not in the NTP Annual Report on Carcinogens. Pentachlorophenol typically contains contaminants, which may cause or contribute to the carcinogenic potential. Pentachlorophenol is possibly carcinogenic to humans (IARC Group 2B).

Fuel oil has been shown to produce tumor formation in laboratory animals following long-term application. Epidemiological studies of workers in the wood treating 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.

Reviewed and revised April 2001: 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).

Carcinogenicity Data: IARC has classified untreated hardwood and hardwood/softwood mix wood dust as a Group I human carcinogen. The wood dust classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and para-nasal sinuses associated with occupational exposures to untreated wood dust. NTP has classified all untreated wood dust as a carcinogen.

OSHA (Occupational Safety and Health Administration) IARC (International Agency for Research on Cancer) NTP (National Toxicology Program)

12. ECOLOGICAL INFORMATION

Overview No aquatic toxicity data is available for this product.

13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Disposal Guidance: DO NOT BURN TREATED WOOD. Do not use pressure treated chips or sawdust as mulch. Dispose of in accordance with local, state and federal regulations. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. A 1990 study by Environmental management Services found that measured concentrations of Pentachlorophenol and other organic compounds subject to Federal Hazardous Waste Toxicity Characteristic Leaching Procedure (TCLP) to determine whether the waste is a hazardous waste, averaged from less than 0.065 mg/L to 7.8 mg/L, well below the regulatory level of 100 mg/L.

14. TRANSPORT INFORMATION

Not regulated as a hazardous material under US DOT for land transportation, IMDG for water transportation or IATA for air transportation.

15. REGULATORY INFORMATION

OSHA (29 CFR 1910.1200): This product is regulated under the Hazard Communication Standard.

SARA 311/312 (40 CFR 370.2): Unless exempted, this product may require reporting. It is the user's responsibility to determine applicability of reporting requirements and exemptions.

SARA 313 (40 CFR 372): Unless exempted, this product may require a Toxic Release Inventory reporting for individual material uses of 25,000 pounds or more. Reporting is under Pentachlorophenol. It is the user's responsibility to determine applicability of reporting requirements and exemptions.

Clean Air Act (CAA): None established under any CAA sections unless manufacturing/generating particulate matter.

Clean Water Act (CWA): this product contains pentachlorophenol which is a regulated pollutant.

CERCLA: This material, as supplied, contains regulated hazardous substances (pentachlorophenol). There may be specific reporting requirements at the local, regional, state or federal level pertaining to releases of this material.

California Proposition 65: This product contains chemicals known to the state of California to cause cancer (Pentachlorophenol, wood dust). (These statements issued in accordance with California Proposition 65).

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS)/ National Fire Protection Association Classifications (NFPA)				
<u>Hazard Ratings :</u>	<u>Health</u>	<u>Flammability</u>	<u>Physical / Instability</u>	<u>PPE/ Special hazard.</u>
HMIS	2	1	0	
NFPA	2	1	0	

THIS SAFETY DATA SHEET (SDS) IS DESIGNED ONLY AS A GUIDANCE FOR SAFE HANDLING AND USE FOR PERSONS WORKING WITH OR EXPOSED TO THIS PRODUCT. THIS SDS IS NOT TO BE CONSIDERED A WARRANTY OR QUALITY SPECIFICATION. THE MANUFACTURER BELIEVES THIS INFORMATION TO BE RELIABLE AND CURRENT AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS.

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