MATERIAL SAFETY DATA SHEET
COPPER-8 QUINOLINOLATE 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 FOR UNTREATED WOOD.

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL NAME: COPPER-8 QUINOLINOLATE TREATED WOOD

PRODUCT USE: LUMBER

MANUFACTURER INFORMATION: Permapost Products Company, Inc.
4066 SE Tualatin Valley Highway
P.O. Box 100
Hillsboro, OR 97123

EMERGENCY TELEPHONE: 503.648.4156

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 customer service.

SECTION 2 – COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>OTHER</th>
<th>%w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel 2-ethyl hexanoate</td>
<td>4454-16-4</td>
<td>0.1mg/M_ as nickel 0.1mg/M_</td>
<td>N/A</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Nonylphenol</td>
<td>2921-88-2</td>
<td>NONE</td>
<td>NONE</td>
<td>RQ = 1 pound</td>
<td>3</td>
</tr>
<tr>
<td>Copper 8-quinolinolate</td>
<td>10380-28-6</td>
<td>1 mg/M_ as Copper 1mg/M_</td>
<td>N/A</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Mineral Spirits</td>
<td>8052-41-3</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>N/A</td>
<td>18</td>
</tr>
<tr>
<td>Wood/Wood dust</td>
<td>Not Available</td>
<td>5mg/M_</td>
<td>1 mg/M_</td>
<td>NA</td>
<td>80</td>
</tr>
</tbody>
</table>

*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.

Note: These values are representative of freshly treated wood.

SECTION 3 – HAZARDS IDENTIFICATION

WARNING! Wood dust may form explosive mixture with air. Wood dusts may cause irritation to the eyes, skin, and respiratory tract.

ROUTES OF ENTRY: Dermal, Ingestion, and Inhalation.

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

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

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Inhalation exposure may aggravate pre-existing respiratory ailments. Skin contact may aggravate pre-existing dermatitis.
HMIS CODES

<table>
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<tbody>
<tr>
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<tr>
<td>FLAMMABILITY</td>
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<tr>
<td>REACTIVITY</td>
<td>0</td>
</tr>
<tr>
<td>PROTECTION</td>
<td>B</td>
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</tbody>
</table>

(safety glasses and gloves)

SECTION 4 – FIRST AID MEASURES

EMERGENCY PHONE NUMBER OF MANUFACTURER: 503.648.4156

1. INHALATION: If affected, removed 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 eyelids. Have victim “roll” 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. Remove contaminated clothing. Launder contaminated clothing before re-use.

4. INGESTION: If treated wood is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Aspiration of material in the lungs due to vomiting can cause chemical pneumonitis, which can be fatal. Never induce vomiting or give diluent (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Get medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: N/A
METHOD: N/A
FLAMMABLE LIMITS IN AIR (%): N/A
AUTOIGNITION TEMPERATURE: 400°-500°F

NFPA CODES

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<tr>
<td>REACTIVITY</td>
<td>0</td>
</tr>
<tr>
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</table>

EXTINGUISHER MEDIA: Water spray, dry chemical, carbon dioxide, halon, or foam.
SPECIAL FIRE FIGHTING PROCEDURES: Product will burn or contribute to intensity of fire. Fire fighting should be aimed at surrounding materials. Incipient fire responders should wear eye protection and self-contained breathing apparatus. Structural fire fighters must wear self-contained breathing apparatus and full turn-out gear (bunker gear). Toxic vapors, including carbon monoxide, may be given off from burning wood.
UNUSUAL FIRE AND EXPLOSION HAZARDS: When heated to decomposition, this product may emit toxic fumes containing carbon monoxide, various hydrocarbons and nitric oxides.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Clean up for recovery or disposal.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Copper-8 Quinolinolate Treated Wood must be dry 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.
OTHER PRECAUTIONS: 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 until solvents have completely volatilized.

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

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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 after removing gloves.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Copper-8 Quinolinolate treated wood has a natural appearance and has a mild mineral spirits or petroleum solvent odor.

BOILING POINT (INITIAL)(F/C): N/A

VAPOR PRESSURE (mmHg): N/A

DENSITY: N/A

EVAPORATION RATE (nBuAC=1): N/A

VAPOR DENSITY (AIR=1): N/A

SECTION 10 – CHEMICAL STABILITY & REACTIVITY INFORMATION

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

CONDITIONS TO AVOID (REGARDING STABILITY): Open flames will cause product to decompose, possibly producing toxic gases. Avoid contact with open flames.

INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with oxidizing agents.

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

CONDITIONS TO AVOID (REGARDING POLYMERIZATION): N/A

SECTION 11 – TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY INFORMATION: No toxicity studies have been conducted on Copper-8 Quinolinolate treated wood. All following toxicological information is for untreated wood dust.

SIGNS AND SYMPTOMS OF ACUTE OVEREXPOSURE: If inhaled, wood dust may be irritating to nose and throat. Can cause chest pains and chemical pneumonitis. Preservative vapor may cause respiratory tract irritation. If exposed in a closed space, vapors may cause headache, drowsiness and possible weakness and incoordination. Prolonged or repeated contact with skin can cause severe irritation or dermatitis. Contact with eyes can cause severe irritation, redness, tearing, and blurred vision.Eating treated sawdust may cause mouth, throat and stomach irritation. Nausea, vomiting and diarrhea can occur.

CHRONIC OVEREXPOSURE: 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 sawmill industry. IARC has determined that there is sufficient evidence to classify untreated wood dust as a nasal carcinogen in humans. (Ref. Monograph 62)

CHEMICAL LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN?: N/A

• NATIONAL TOXICOLOGY PROGRAM (Y/N)? Y
• IARC MONOGRAPHS (Y/N)? N
• OSHA (Y/N)? N

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: Copper-8 Quinolinolate treated wood does not meet RCRA’s characteristic definition of ignitability, corrosivity, or reactivity and is not listed in 40 CFR 281.33. Waste disposal must be in accordance with appropriate State, and local regulations. This product, if unaltered by the handling, may be disposed of be means of sanitary landfill facility. Treated wood should not be burned in open fires or in stoves, fireplaces, or residential boilers.
SECTION 14 – TRANSPORTATION INFORMATION

This product is classified for transportation purposes as follows:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>IATA (air)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>IMO (water)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>DOT (land)</td>
<td>X</td>
<td></td>
</tr>
</tbody>
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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 Material Safety Data Sheet before handling product.

This is the end of MSDS #030925-K8-001