

# Material Safety Data Sheet

## CREOSOTE TREATED WOOD

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**PRODUCT NAME:** CREOSOTE TREATED WOOD

**OTHER/GENERIC NAMES:** Preserved Wood

**PRODUCT USE:** Construction, transportation (railroad), communication (telephone poles)

**MANUFACTURER:**

**FOR MORE INFORMATION CALL:**

**IN CASE OF EMERGENCY CALL:**

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

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<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Wood	-----	85%
Creosote	8001-58-9	15%

The Creosote content of treated wood is based on a treatment level of 7 lbs. of Creosote per cubic foot of wood; the actual percentage can vary due to differences in woodstock and treatment.

Trace impurities and additional material names not listed above may also appear in Section 15. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

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### 3. HAZARDS IDENTIFICATION

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**EMERGENCY OVERVIEW:** Handling may cause splinters. Preservative treatment may cause eye and skin irritation. Observe good hygiene and safety practices when handling this product. Creosote and wood dust are classed as carcinogens. Do not use this product until MSDS has been read and understood.

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### POTENTIAL HEALTH HAZARDS

- SKIN:** Contact with skin can result in irritation which when not washed off or when accentuated by sunlight, can result in minor burns (i.e. sunburn).
- EYES:** Overexposure to product vapors can result in irritation. Eye contact with treated or untreated wood dust or preservative can result in irritation, which in the absence of recommended first aid can result in minor burns to the eyes.
- 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.
- INGESTION:** Swallowing treated sawdust may cause mouth, throat and stomach irritation. Nausea, vomiting and diarrhea can occur.
- DELAYED EFFECTS:** **CREOSOTE PRESERVATIVE:** Prolonged and repeated skin exposure over many years in the absence of recommended hygiene practices may lead to changes in skin pigmentation, benign skin growths and may in some cases, result in skin cancer. Additionally, inhalation of creosote vapors may present a lung cancer hazard.
- UNTREATED WOOD DUST OR SAWDUST:** Wood dust has been classified as carcinogenic to humans (IARC-Group 1). Wood dust will most likely occur during the cutting of the treated wood and should not be expected during the normal handling.

**Ingredients found on one of the OSHA designated carcinogen lists are listed below.**

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
Creosote	Known Carcinogen	2A-Probable Carcinogen	----
Wood dust	----	1-Known Carcinogen	----

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### 4. FIRST AID MEASURES

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- SKIN:** Rinse skin free of particulates. Wash thoroughly with soap and water. Avoid solvents. Rub gently to avoid abrasion of skin. Get medical attention if irritation persists.
- EYES:** Gently flush any particles from the eye with large amounts of clean, cool water for at least 15 minutes. DO NOT RUB EYES. Get medical attention if irritation persists.
- 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.
- ADVICE 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. (See Section 3. for Health Hazards and Effects).

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### **5. FIRE FIGHTING MEASURES**

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#### **FLAMMABLE PROPERTIES**

<b>FLASH POINT:</b>	Not Applicable
<b>FLASH POINT METHOD:</b>	Not Applicable
<b>AUTOIGNITION TEMPERATURE:</b>	Not Determined
<b>UPPER FLAME LIMIT (volume % in air):</b>	Not Determined
<b>LOWER FLAME LIMIT (volume % in air):</b>	Not Determined
<b>FLAME PROPAGATION RATE (solids):</b>	Not Determined
<b>OSHA FLAMMABILITY CLASS:</b>	Not Applicable

#### **EXTINGUISHING MEDIA:**

Water/fog, carbon dioxide, foam, dry chemicals, sand, or steam.

#### **UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Water/fog can control unconfined fires.

When heated to elevated temperature, it emits lower molecular weight hydrocarbons.

#### **SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:**

Wood dust may form explosive mixture with air. Fire vapors and combustion products are irritants and toxic. Self-contained breathing apparatus (SCBA) and full protective clothing should be worn if material is involved in a fire.

### **6. ACCIDENTAL RELEASE MEASURES**

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#### **IN CASE OF SPILL OR OTHER RELEASE:**

Not Applicable

(Always wear recommended personal protective equipment.)

**Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.**

### **7. HANDLING AND STORAGE**

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**NORMAL HANDLING:** (Always wear recommended personal protective equipment.)

Wear clothing closed at the neck, long sleeves and non-porous type gloves. Industrial type resistant (e.g., vinyl coated) heavy duty flexible gloves required for prolonged or frequent contact. For dusty operations (areas), wear necessary resistant protective apparel including required head, hand and safety-type footwear. Wear tightly woven coveralls or long sleeved shirts and long pants. A complete soap and water shower at the end of each working day is recommended for all industrial work situations.

**STORAGE RECOMMENDATIONS:** Keep away from open flame.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**ENGINEERING CONTROLS:** Avoid breathing vapors or sawdust, ventilate work area, wear respirator, goggles, or face shield. 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.

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### PERSONAL PROTECTIVE EQUIPMENT

#### **SKIN PROTECTION:**

Wear necessary protective clothing to protect head, face, neck and uncovered skin from contact with wood dust or preservative. For exposed skin, the application of a commercially available sun-blocking lotion is recommended to greatly reduce the phototoxicity of creosote associated sun burning. The lotion should be applied prior to the application of a barrier cream and should have a sun protection factor (SPF) of 15 or greater. The application of a barrier cream (e.g. Ply 9 Gel, MSA's Fend AE-2, Kerodex 51, Jergens SBS-46) is recommended to prevent coal tar containing products from contacting skin.

**EYE PROTECTION:** Safety glasses, goggles or face shield when power sawing or machining.

#### **RESPIRATORY PROTECTION:**

Not normally required except when handling procedure(s) generate dust. If ventilation does not maintain inhalation exposures below PEL (TLV), use NIOSH /MSHA-approved units as per current 29 CFR 1910.134. If within OSHA protection factor, air purifying OV/filter units are acceptable. Use a NIOSH-approved respirator with suitable particulate cartridge.

#### **ADDITIONAL RECOMMENDATIONS:**

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

If oily preservatives/sawdust soil clothes, launder work clothing separately from household clothing before reuse. A complete change of work clothes should be used each day if contaminated. Whenever possible, sawing/machining treated wood should be performed outdoors to avoid accumulations of airborne treated wood sawdust.

Urethane/epoxy/shellac are acceptable sealers for creosote treated wood. Coal tar pitch and coal tar pitch emulsions are effective sealers for creosote treated wood block flooring.

### EXPOSURE GUIDELINES

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
Creosote (measured as Coal Tar Pitch Volatiles, CTPV)	0.2 mg/m <sup>3</sup>	0.2 mg/m <sup>3</sup>	None
Wood Dust			
Hard (certain hardwood species - oak and beech)	1 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL	None
Soft	5 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL	5 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL	None

#### **OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:**

Material does not decompose. Combustion products include carbon monoxide, oxides of nitrogen.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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<b>APPEARANCE:</b>	Treatment imparts dark brown to black color.
<b>PHYSICAL STATE:</b>	Solid
<b>MOLECULAR WEIGHT:</b>	Not Applicable
<b>CHEMICAL FORMULA:</b>	Not Applicable

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<b>ODOR:</b>	Penetrating, smoky odor	
<b>SPECIFIC GRAVITY (water = 1.0):</b>	Approximately the same as untreated wood	
<b>SOLUBILITY IN WATER (weight %):</b>	Not Applicable	
<b>pH:</b>	Not Applicable	
<b>BOILING POINT:</b>	Not Applicable	
<b>MELTING POINT:</b>	Not Applicable	
<b>VAPOR PRESSURE:</b>	Negligible @ ambient	
<b>VAPOR DENSITY (air = 1.0):</b>	Not Applicable	
<b>EVAPORATION RATE:</b>	Not Applicable	<b>COMPARED TO:</b> Not Applicable
<b>% VOLATILES:</b>	Not Applicable	
<b>FLASH POINT:</b>	Not Applicable	

(Flash point method and additional flammability data are found in Section 5.)

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### **10. STABILITY AND REACTIVITY**

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**NORMALLY STABLE? (CONDITIONS TO AVOID):** Stable

**INCOMPATIBILITIES:** Strong acids. Open flame.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Material does not decompose. Combustion products include carbon monoxide, oxides of nitrogen.

**HAZARDOUS POLYMERIZATION:** Will not occur

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### **11. TOXICOLOGICAL INFORMATION**

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**IMMEDIATE (ACUTE) EFFECTS:** Possible skin irritation which is accentuated by sunlight.

**DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:** IARC has classified wood dust as a human carcinogen. Normal handling of the creosote treated wood would not be expected to generate wood dust, but cutting, grinding and/or other activities may generate wood dust.

**OTHER DATA:**

Persons with pre-existing disease 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.

The IARC monographs (Vol. 35) states 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.

Many cohort and case-control studies of cancer of the nasal cavities and paranasal sinuses have shown increased risks associated with exposure to wood dust. Adenocarcinoma of the nasal cavities and paranasal sinuses is clearly associated with exposure to hardwood dust. Occupational exposure to wood dust does not appear to have a causal role in cancers of the oropharynx, hypopharynx, lung, lymphatic and haematopoietic systems, stomach, colon or rectum.

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

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on Carcinogens or OSHA 29 CFR 1910.1001-1047 subpart Z Toxic and Hazardous Substances (Specifically Regulated Substances).

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### **12. ECOLOGICAL INFORMATION**

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Not Determined

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### **13. DISPOSAL CONSIDERATIONS**

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#### **RCRA**

**Is the unused product a RCRA hazardous waste if discarded?** Solid Waste/ Potential Hazardous Waste  
**If yes, the RCRA ID number is:** Potential characteristic waste

#### **OTHER DISPOSAL CONSIDERATIONS:**

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 local, state and federal regulations. Treated wood is not regulated as a hazardous waste by the USEPA, and usually does not fail the USEPA TCLP test, depending on sampling procedures, particle size, type of wood and proportion of treated to untreated wood sample. Dispose of sawdust and wood in accordance with local, state and federal regulations. Contact your direct supplier for additional disposal information.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

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### **14. TRANSPORT INFORMATION**

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**US DOT HAZARD CLASS:** Not Regulated  
**US DOT ID NUMBER:** Not Applicable

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

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### **15. REGULATORY INFORMATION**

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#### **TOXIC SUBSTANCES CONTROL ACT (TSCA)**

**TSCA INVENTORY STATUS:** Creosote - listed on EPA's TSCA Inventory  
**OTHER TSCA ISSUES:** None

#### **SARA TITLE III/CERCLA**

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<b><u>INGREDIENT NAME</u></b>	<b><u>SARA/CERCLA RQ (lb)</u></b>	<b><u>SARA EHS TPQ (lb)</u></b>
Creosote	1	Not Applicable

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**Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.**

**SECTION 311 HAZARD CLASS:** Immediate, delayed, fire (for creosote)

**SARA 313 TOXIC CHEMICALS:**

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

**INGREDIENT NAME**

Creosote

**COMMENT**

de minimus concentration is 0.1 %

**STATE RIGHT-TO-KNOW**

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

**INGREDIENT NAME**

None

**WEIGHT %    COMMENT**

**ADDITIONAL REGULATORY INFORMATION:** None

**WHMIS CLASSIFICATION (CANADA):**

Class D, Division 2, Subdivision A, very toxic material (For Creosote)

TDG Flammability Classification: None. Sensitivity to mechanical impact: NA.

Sensitivity to static discharge: NA.

**FOREIGN INVENTORY STATUS: (For Creosote)**

Listed on the EINECS Inventory - ID#2322875

Listed on the Canadian Inventory Domestic Substance List (DSL)

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## **16. OTHER INFORMATION**

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**CURRENT ISSUE DATE:** May, 1996

**PREVIOUS ISSUE DATE:** April, 1991

**CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:**

Updated data on wood dust carcinogenicity.

MSDS updated to include 16-Section ANSI Format for Material Safety Data Sheets.

**OTHER INFORMATION:** None