CREOSOTE OIL

Safety Data Sheet

According To Federal Register / Vol. 89, No. 98 / Monday, May 20, 2024 / Rules And Regulations and the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Date of Issue: 01/07/2026 Version: 3.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Substance

Product Name: Creosote Oil

Chemical Name: Coal Tar Creosote

CAS-No.: 8001-58-9

Synonyms: AWPA P1

1.2. Intended Use of the Product

Use of the Substance/Mixture: Wood Preservative

1.3. Name, Address, and Telephone of the Responsible Party

Company

Lone Star Specialty Products, LLC
6412 U.S. Highway 259 South
Lone Star, TX 75668 USA
Phone #: 903-656-2536
Fax #: 903-656-2151
www.lonestarspecialties.net

1.4. Emergency Telephone Number

Emergency Number: 800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Flam. Liq. 4	H227
Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Irrit. 2B	H320
Skin Sens. 1B	H317
Muta. 2	H341
Carc. 1B	H350
Repr. 1B	H360
STOT SE 3	H335
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of hazard classes and H-statements: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

GHS07 GHS08 GHS09 GHS02

Hazard Statements (GHS-US):

H227 - Combustible liquid.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H320 - Causes eye irritation.
H335 - May cause respiratory irritation.
H341 - Suspected of causing genetic defects.
H350 - May cause cancer.
H360 - May damage fertility or the unborn child.
H373 - May cause damage to organs (lungs, liver, kidneys, blood) through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements (GHS-US):

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P203 - Obtain, read and follow all safety instructions before use.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 - Do not breathe vapors, mist, or spray.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P302+P352 - If on skin: Wash with plenty of water.
P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see section 4 on this SDS).
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media (see Section 5) to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name: Creosote Oil

CAS-No.: 8001-58-9

Name	Synonyms	Product Identifier	%	GHS US classification
Coal tar creosote	Creosote / Creosote (The distillate of coal tar produced by the high temperature carbonization of bituminous coal. It consists primarily of aromatic hydrocarbons, tar acids and tar bases.) / Creosote oil / Oils, creosote / Creosotes / Creosote (coal tar) / Brick oil / Creosote oils / Creosote [The distillate of coal tar produced by the high temperature carbonization of bituminous coal. It consists primarily of aromatic hydrocarbons, tar acids and tar bases.]	(CAS-No.) 8001-58-9	97.5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Skin Sens. 1B, H317 Muta. 2, H341 Carc. 1B, H350 Repr. 1B, H360 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. If exposed or concerned: Get medical advice/attention. Obtain medical attention if irritation/rash develops or persists.

First-aid Measures After Eye Contact: Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: May cause respiratory irritation. May cause cancer. May cause damage to organs through prolonged or repeated exposure. Skin sensitization. Causes skin irritation. Causes eye irritation. Suspected of causing genetic defects. May damage fertility. May damage the unborn child. Harmful if swallowed. Contact with hot liquid may cause thermal burns.
Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes.
Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis.
Symptoms/Injuries After Eye Contact: May cause moderate irritation, including burning sensation, tearing, redness or swelling.
Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts.
Chronic Symptoms: May cause cancer. May cause damage to organs (lungs, liver, kidneys, blood) through prolonged or repeated exposure. Suspected of causing genetic defects. May damage fertility or the unborn child.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO_2), dry chemical, foam, or water spray/fog. Water may be effective for cooling and dilution.
Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy streams of water may spread fire.

5.2. Special Hazards Arising from the Substance or Mixture

Fire Hazard: COMBUSTIBLE LIQUID (Flam. Liq. 4). Material can burn at elevated temperatures (above flash point of >93.3°C/>200°F). Not highly flammable at ambient temperatures. Heating in fire may cause pressure buildup and container rupture. When heated above flash point, vapors may ignite if exposed to ignition sources.

IMPORTANT CLARIFICATION: This material has a flash point >93.3°C (>200°F) and is classified as a combustible liquid. It does NOT readily form explosive vapor-air mixtures at normal ambient temperatures (20-25°C). The fire and explosion hazard is present primarily when the material is heated above its flash point or in fire situations.

Explosion Hazard: Not classified as explosive. Containers may rupture violently when heated in fire. At elevated temperatures (approaching or exceeding flash point), vapors may form flammable mixtures with air in confined spaces.
Reactivity: Hazardous reactions will not occur under normal conditions. May be sensitive to exposure to air (oxidation). Slightly soluble in water. Incompatible with strong oxidizers.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Keep away from sources of ignition.
Firefighting Instructions: Use water spray or fog for cooling exposed containers. Water may be used to blanket fire or dilute spills. Do not scatter spilled material with high-pressure water streams. Move containers from fire area if safe to do so.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including self-contained breathing apparatus (SCBA) and full protective clothing.
Hazardous Combustion Products: Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx). Sulfur dioxide (SO2). Polycyclic-aromatic hydrocarbons (PAH), including carcinogenic compounds. Irritating or toxic vapors and dense black smoke.
Other Information: Do not allow run-off from firefighting to enter drains or water courses. Exposure to combustion products may be a hazard to health. Containers may explode when heated.
CLASSIFICATION NOTE: While classified as combustible (Flam. Liq. 4 per GHS), this material requires heating to temperatures >93.3°C before it presents a significant fire hazard. Emergency responders should treat it as combustible liquid, not as highly flammable liquid.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. **Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: COMBUSTIBLE LIQUID: Material can burn when heated above flash point (>93.3°C/ >200°F). Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Pressure may build in closed containers. When handling heated product, open containers with care and use appropriate fire prevention measures. Pressure may build in closed containers and flammable vapors may accumulate, open containers with care.

Precautions for Safe Handling: FIRE PREVENTION (especially for heated product):

- Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources
- Do not smoke near heated material
- Prevent buildup of vapors in confined spaces when heating product
- Use explosion-proof equipment when handling heated material
- Ground and bond containers when transferring heated product
- Maintain adequate ventilation when heating

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, or spray. Obtain special instructions before use. Do not get in eyes, on skin, or on clothing. Handle empty containers with care because they may still present a hazard.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Store away from heat sources and ignition sources. Ensure adequate ventilation, particularly if product is stored at elevated temperatures.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place away from heat. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up in a secure area. Keep away from sources of ignition.

Storage Temperature: Store below 38°C (100°F). Keep well below flash point (>93.3°C / >200°F).

Incompatible Materials: Strong oxidizers.

7.3. Specific End Use(s): Wood Preservative

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Thermal Hazard Protection: When working with hot material, use suitable thermally protective clothing.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State:	Liquid
Appearance:	Dark brown to black; 2.5Y2/2 to 2.5Y4/2 on the Munsell color scheme
Odor:	Sharp, aromatic, wood-like odor
Odor Threshold:	No data available
pH:	7 - 8
Melting Point/Freezing Point:	No data available
Initial Boiling Point and Boiling Range:	> 180 °C (356 °F)
Flash Point:	> 93.3 °C (200 °F) PMCC (Pensky-Martens Closed Cup)

Evaporation Rate:	<1 (Butyl Acetate = 1)
Flammability (solid, gas):	Not applicable
Upper Explosive Limit (UEL):	No data available
Lower Explosive Limit (LEL):	No data available
Vapor Pressure:	11.1 mm Hg @24.4 °C (75.9 °F)
Vapor Density at 20°C:	> 1 (air = 1)
Relative Density at 20°C:	1.076 g/cm^3
Density:	8.7 lb/gal
Solubility(ies):	Water: 313 µg/mL
Partition Coefficient: N-Octanol/Water:	3.247 (Log Kow)
Auto-Ignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	14.6 mm²/s @ 25 °C (77 °F)
Explosive Properties:	Not explosive
Oxidizing Properties:	Not oxidizing
Chemical Formula:	Complex UVCB mixture of polycyclic aromatic hydrocarbons (PAHs), phenolic compounds, and heterocyclic compounds
Molecular Weight:	130-210 (average for PAH components)

9.2. Other Information:

VOC Content: Contains volatile organic compounds

Note: Coal tar creosote is a UVCB substance. Properties vary with coal source and distillation conditions. This product (AWPA P1 grade) may have different properties than AWPA P2 grade creosote.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible Materials: Strong oxidizers.

10.6. Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity (Oral): Harmful if swallowed.
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified

Creosote Oil (8001-58-9)	
ATE (Oral)	743.59 mg/kg body weight

Coal tar creosote (8001-58-9)	
LD50 Oral Rat	725 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

Skin Corrosion/Irritation: Causes skin irritation.

pH: 7 - 8

Serious Eye Damage/Irritation: Causes eye irritation.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.
Germ Cell Mutagenicity: Suspected of causing genetic defects. **Carcinogenicity:**
May cause cancer.

Coal tar creosote (8001-58-9)	
IARC group	2A
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity: May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs (lungs, liver, kidneys, blood) through prolonged or repeated exposure.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: May cause moderate irritation, including burning sensation, tearing, redness or swelling.

Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts.

Chronic Symptoms: May cause cancer. May cause damage to organs (lungs, liver, kidneys, blood) through prolonged or repeated exposure. Suspected of causing genetic defects. May damage fertility or the unborn child.

Interactive Effects: Coal tar creosote is a complex UVCB mixture containing multiple polycyclic aromatic hydrocarbons (PAHs), phenolic compounds, and heterocyclic compounds that exhibit synergistic toxicity. Specific interactive effects include:

1. **Enhanced Carcinogenicity:** Multiple PAH components present together show additive or synergistic carcinogenic effects. Creosote contains numerous PAHs classified as probable or confirmed human carcinogens (IARC Group 2A), and concurrent exposure is more hazardous than exposure to individual PAHs.

2. **Phototoxicity Synergy:** Many PAH components in creosote oil are phototoxic and photosensitizing. Combined exposure to creosote and ultraviolet (UV) radiation dramatically increases skin damage, severe burns, and skin cancer risk. This is well-documented in wood treatment workers and those handling creosote-treated materials outdoors.

3. **Dermal Sensitization Enhancement:** Skin sensitization (H317) is enhanced by concurrent skin irritation (H315). The irritant components compromise skin barrier function, increasing penetration of sensitizing PAHs and phenolic compounds. Repeated exposure leads to progressively worsening allergic contact dermatitis.

4. **Reproductive/Developmental Toxicity:** Multiple components with reproductive toxicity act additively on fertility and fetal development. The Repr. 1B classification (previously misclassified as 1A in earlier version) reflects concern for interactive reproductive and developmental effects.

5. **Organ Toxicity (STOT RE 2):** Damage to lungs, liver, kidneys, and blood (hematopoietic system) results from additive or synergistic effects of multiple toxic components through repeated exposure. PAHs, phenolic compounds, and heterocyclic compounds each contribute to organ damage.

6. **Concurrent Chemical Exposures:** Creosote oil toxicity may be enhanced by: - Alcohol consumption (increased systemic toxicity, CNS effects, hepatotoxicity) - Other petroleum products or coal tar materials (additive systemic toxicity) - UV radiation exposure (CRITICAL - severe phototoxicity and burns) - Skin contact with soaps/detergents (increased dermal penetration) - Heat exposure (increases vapor generation and inhalation hazard)

7. **Volatilization Hazard:** When heated (approaching flash point >93°C), creosote oil releases more volatile PAH vapors, increasing inhalation exposure and associated respiratory irritation (H335) and systemic effects.

   CRITICAL WARNING FOR WOOD TREATMENT APPLICATIONS: Outdoor use and handling of creosote-treated materials creates severe phototoxicity hazard. Workers must avoid sun/UV exposure on contaminated skin for at least 24-48 hours after contact. Protective clothing and sunscreen are insufficient - skin must be thoroughly decontaminated before sun exposure.

   No protective (antagonistic) interactions are known for creosote components. All interactions appear additive or synergistic in terms of toxicity.

Alternative Information Sources: Specific toxicological data on coal tar creosote (CAS 8001-58-9) as a substance are available from extensive testing programs and published literature. When mixture-specific data is not available for certain endpoints, information is derived from:

Primary Data Sources:

- Direct toxicity testing of coal tar creosote (CAS 8001-58-9)
- IARC Monographs: Creosote is IARC Group 2A (Probably Carcinogenic to Humans)
- Extensive epidemiological studies of wood treatment workers and creosote-exposed populations
- Published peer-reviewed toxicological literature on creosote exposures
- Wood preservative industry toxicity databases and cooperative research
- AWPA (American Wood Protection Association) technical documents and standards

Product-Specific Context: This product is AWPA P1 grade coal tar creosote, which differs from AWPA P2 grade primarily in benzo(a)pyrene content and other specifications. Both grades have similar overall toxicity profiles but P1 may have lower PAH content.

Component-Based Assessment: When whole-mixture testing data are unavailable, toxicity is assessed using:

- Data on major PAH constituents:
    - Naphthalene (volatile component, respiratory irritant)
    - Anthracene, phenanthrene (dermal irritants, phototoxic)
    - Pyrene, fluoranthene (biomarkers of PAH exposure)
    - Benzo(a)pyrene (marker carcinogenic PAH)
- Phenolic compound toxicity data (phenol, cresols, xylenols - irritants/corrosives)
- Heterocyclic compound data (carbazole, dibenzofuran - organ toxicants)
- Individual component carcinogenicity and mutagenicity classifications

Bridging Principles Applied:

- **Category approach:** Coal tar creosote is in the "Coal tar products" category with coal tar, coal tar pitch, and coal tar distillates - all UVCB substances from coal carbonization
- **Read-across:** Different production sources of coal tar creosote (high- temperature coal tar distillation) have similar PAH profiles and toxicity when meeting AWPA standards
- **Substantial similarity:** Creosote products meeting AWPA P1 or P2 specifications are considered substantially similar for hazard classification purposes
- **Grade differences:** P1 vs P2 differences are quantitative (PAH concentrations) rather than qualitative (hazard types)

Mixture Classification Methods:

- **Acute oral toxicity:** ATE calculated as 743.59 mg/kg using GHS additivity formula based on component LD50 values
- **Skin/eye irritation:** Based on irritating component concentrations, pH (7-8), and empirical testing data
- **Skin sensitization:** Based on known sensitizing PAHs and phenolic compounds; classified as Skin Sens. 1B (correct classification, not Skin Sens. 1 as previously stated)
- **Carcinogenicity:** Classified Carc. 1B based on IARC 2A substance-level evaluation and component carcinogens
- **Reproductive toxicity:** Classified as Repr. 1B (NOT 1A as in previous version) based on reproductive toxicant components and limited evidence in humans
- **Aquatic toxicity:** Summation method per GHS guidance using component LC50/EC50 values
- **Flammability:** Based on flash point testing (>93.3°C PMCC = Flam. Liq. 4, combustible liquid)

Key References:

- IARC Monograph Vol. 92 (2010): "Coal Tars and Coal-Tar Pitches" (includes comprehensive creosote evaluation)
- EPA IRIS Assessment for Creosote
- ATSDR Toxicological Profile for Creosote (U.S. Department of Health and Human Services)
- ECHA Registration Dossier (if registered under EU REACH)

- AWPA Standards P1/P2 and associated technical reports
- **Occupational exposure studies:** wood treatment facilities, railroad tie workers, utility pole workers
- **Phototoxicity studies:** critical for outdoor applications

AWPA P1 vs P2 Distinction: This SDS covers AWPA P1 grade. Users should be aware that AWPA P2 grade creosote may have higher benzo(a)pyrene content and potentially greater carcinogenic potency, though both grades are classified similarly under GHS.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology – General: Very toxic to aquatic life with long lasting effects.

Coal tar creosote (8001-58-9)	
LC50 Fish 1	2.6 - 6.6 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	1.04 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	0.57 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 2	0.065 - 0.082 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and Degradability

Creosote Oil (8001-58-9)	
Persistence and Degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

Creosote Oil (8001-58-9)	
Bioaccumulative Potential	Not established.

12.4. Mobility in Soil: No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (COAL TAR CREOSOTE)
Hazard Class: 9
Identification Number: UN3082
Label Codes: 9
Packing Group: III
Marine Pollutant: Yes
ERG Number: 171

14.2. In Accordance with IMDG

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COAL TAR CREOSOTE)
Hazard Class: 9
Identification Number: UN3082
Packing Group: III
Label Codes: 9
EmS-No. (Fire): F-A
EmS-No. (Spillage): S-F
Marine Pollutant: Marine pollutant

14.3. In Accordance with IATA

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COAL TAR CREOSOTE)
Identification Number: UN3082
Hazard Class: 9
Label Codes: 9
ERG Code (IATA): 9L

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Creosote Oil (8001-58-9)	
SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Carcinogenicity Health hazard - Respiratory or skin sensitization Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation Health hazard - Germ cell mutagenicity Health hazard - Reproductive toxicity Health hazard - Acute toxicity (any route of exposure)

Coal tar creosote (8001-58-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1 lb
SARA Section 313 - Emission Reporting	0.1 %

15.2. US State Regulations

Coal tar creosote (8001-58-9)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List

California Proposition 65

WARNING: This product can expose you to Coal tar creosote, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Coal tar creosote (8001-58-9)	X			

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision: 01/07/2026

Previous Revision Date: 01/22/2025 (Version 2.0)

Original Issue Date: 09/02/2020

Version: 3.0

Revision Summary: Updated to comply with OSHA Hazard Communication Standard 29 CFR 1910.1200 as amended May 20, 2024 (GHS Revision 7). Added missing Flam. Liq. 4 (H227 - Combustible liquid) classification to Section 2 to match Section 3 component classification. Corrected reproductive toxicity classification from Repr. 1A to Repr. 1B to match actual component classification. Corrected skin sensitization from Skin Sens. 1 to Skin Sens. 1B to match component classification. Added GHS02 (Flame) pictogram to Section 2.2. COMPLETELY REWROTE Section 5 fire hazard information - previous version incorrectly described material as "highly flammable" when it is combustible (Flam. Liq. 4). Added combustible liquid precautionary statements (P210, P370+P378, P403+P235). Added interactive effects and alternative information paragraphs to Section 11. Enhanced Section 9 physical properties format. Updated regulatory references to 2024 OSHA HCS standard

Other Information: This document has been prepared in accordance with the OSHA Hazard Communication Standard 29 CFR 1910.1200, as amended by final rule published May 20, 2024 (effective July 19, 2024), aligning with the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 7, with selected elements from Revision 8.

Product Information: Coal tar creosote is a wood preservative produced by high-temperature distillation of coal tar. This product meets AWPA P1 specifications for creosote wood preservative (synonym: AWPA P1). The complex UVCB nature means composition varies depending on coal source and distillation conditions. AWPA P1 and P2 grades have different specifications but similar hazard classifications.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Flam. Liq. 4	Flammable liquids Category 4
Muta. 2	Germ cell mutagenicity Category 2
Repr. 1B	Reproductive toxicity Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1B
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H227	Combustible liquid
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H350	May cause cancer
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NFPA 704 Diamond Rating System:

NFPA Health Hazard: **3** - Materials that, under emergency conditions, can cause serious or permanent injury.

Justification: IARC Group 2A carcinogen (probably carcinogenic to humans). Multiple serious health hazards including carcinogenicity (H350), germ cell mutagenicity (H341), reproductive toxicity Repr. 1B (H360), organ damage STOT RE 2 (H373), and skin sensitization (H317). Severe phototoxicity with UV exposure. Wood preservative use creates significant exposure potential.

NFPA Fire Hazard: **2** - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

Justification: Flash point >93.3°C (>200°F) PMCC. Classified as combustible liquid (Flam. Liq. 4 / H227). Requires moderate heating before ignition. NOT highly flammable at ambient temperature.

NFPA Reactivity Hazard: **0** - Materials that in themselves are normally stable, even under fire conditions.

Justification: Stable under normal conditions. No hazardous polymerization. May be sensitive to air (oxidation) but this does not increase reactivity rating. Reaction with strong oxidizers is not unusual for organic materials.

NFPA Special Hazard: None

NFPA 704 Diamond:

CRITICAL WARNINGS FOR EMERGENCY RESPONDERS:

CARCINOGEN: IARC Group 2A (Probably Carcinogenic to Humans). Contains multiple polycyclic aromatic hydrocarbons (PAHs) that are known or probable human carcinogens. Minimize exposure duration and use appropriate respiratory protection. Decontaminate thoroughly after exposure.

PHOTOTOXICITY HAZARD: Contains PAHs that cause SEVERE phototoxic reactions. Skin contact followed by sunlight/UV exposure causes severe burns, blistering, and long-term skin damage. Decontaminate exposed skin IMMEDIATELY and COMPLETELY. Keep contaminated people out of sunlight for 24-48 hours. This is a CRITICAL hazard for outdoor wood treatment operations.

COMBUSTIBLE LIQUID (NOT HIGHLY FLAMMABLE): Flash point >200°F. Material can burn when heated above flash point but does NOT readily ignite at ambient temperature. Keep away from heat and ignition sources. Incident commanders should treat it as combustible liquid, not highly flammable liquid. SKIN SENSITIZER: May cause severe allergic skin reactions (Skin Sens. 1B). Repeated exposure leads to progressively worsening contact dermatitis. Avoid all skin contact. Use chemical-resistant gloves and protective clothing.

ENVIRONMENTAL HAZARD: Very toxic to aquatic life with long-lasting effects (H410). Prevent environmental release. Extremely persistent in soil and sediment. Do not allow run-off to enter waterways.

WOOD PRESERVATIVE USE: This material is used to pressure-treat wood for utility poles, railroad ties, marine pilings, and other outdoor applications. Workers and emergency responders may encounter treated wood products as well as bulk creosote. Both present exposure hazards, especially with dermal contact and sun exposure.

AWPA P1 GRADE: This is AWPA P1 grade creosote oil. AWPA P2 grade has different specifications (typically higher PAH content) but similar hazard profile.