

LIGHT CREOSOTE OIL

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SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

LIGHT CREOSOTE OIL
Wood creosote oil, light distillate; Coal tar creosote, light oil fraction
CAS: 8001-58-9

Other means of identification:

Not relevant

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Wood preservative intermediate/formulation component, raw material for carbon black and other coal-tar-derived chemical intermediates. For industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3. Not for consumer/retail use; professional/industrial wood treatment only, subject to applicable biocide/wood-preservative regulations.

1.3 Supplier's details:

SURAJ CHEMICALS
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1.4 Emergency phone number:

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Carc. 1B	Carcinogenicity, Category 1B, H350
Muta. 2	Germ cell mutagenicity, Category 2, H341
Acute Tox. 4	Acute oral toxicity, Category 4, H302
Aquatic Acute 1	Hazardous to the aquatic environment, acute hazard, Category 1, H400
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic hazard, Category 1, H410

2.2 GHS label elements, including precautionary statements:

GHS: Danger

Hazard statements:

Carc. 1B: H350 – May cause cancer.
Muta. 2: H341 – Suspected of causing genetic defects.
Acute Tox. 4: H302 – Harmful if swallowed.
Aquatic Acute 1: H400 – Very toxic to aquatic life.
Aquatic Chronic 1: H410 – Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local/national regulations.

2.3 Other hazards which do not result in classification:

Strong, persistent, penetrating odour. Photosensitisation of skin (enhanced sunburn-type reaction) has been reported with creosote-type materials following skin contact and subsequent sun exposure.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical description: Complex distillate of coal tar / wood tar – a UVCB (Unknown or Variable composition, Complex reaction products or Biological materials) substance, light distillation cut, containing polycyclic aromatic hydrocarbons (PAHs), phenolic and other aromatic compounds.

In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 8001-58-9	Light Creosote Oil – Carc. 1B: H350; Muta. 2: H341; Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410 – Danger	≥ 95%

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

3.2 Mixtures:

Non-applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide fresh air and keep at rest. Seek medical attention if symptoms develop.

By skin contact:
Remove contaminated clothing immediately. Wash skin thoroughly with soap and water. Avoid sunlight exposure on affected skin following contact (photosensitisation risk). Seek medical attention if irritation or burns develop.

By eye contact:
Rinse eyes immediately with plenty of lukewarm water for at least 15 minutes, holding eyelids open. Remove contact lenses if present and easy to do. Seek immediate medical/ophthalmological attention.

By ingestion/aspiration:
Rinse mouth with water. Do NOT induce vomiting due to aspiration risk. Seek immediate medical attention/Poison Centre advice.

4.2 Most important symptoms/effects, acute and delayed:
Causes skin and eye irritation; photosensitisation possible. Harmful if swallowed. May cause cancer with prolonged/repeated exposure; suspected of causing genetic defects. Acute and delayed effects are further indicated in section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Treat symptomatically. Contact a Poison Information Centre in case of accidental ingestion or significant exposure.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:
Suitable: Water fog/spray, foam (AFFF), dry chemical powder (ABC), carbon dioxide (BC)
Unsuitable: High-pressure water jet (may splash and spread burning material)

5.2 Specific hazards arising from the chemical:
Combustible liquid. On combustion, produces dense, acrid smoke containing polycyclic aromatic hydrocarbons, carbon monoxide, carbon dioxide and phenolic decomposition products – avoid breathing smoke.

5.3 Special protective actions for fire-fighters:
Evacuate non-essential personnel. Use self-contained breathing apparatus (SCBA) and full protective clothing. Cool exposed containers with water spray.

Additional provisions:
Contain fire-fighting water run-off to prevent environmental contamination – the product and its combustion residues are very toxic to aquatic life.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
For non-emergency personnel:
Avoid contact with skin, eyes and avoid breathing vapour/mist. Use personal protective equipment as described in section 8. Ventilate the area.

For emergency responders:
Wear full protective equipment (section 8), including chemical-resistant suit. Keep unprotected persons away.

6.2 Environmental precautions:
Avoid at all cost any discharge into drains, soil or water courses – the product is very toxic to aquatic life with long-lasting effects. Contain spillage and notify the relevant authority in case of significant release to the environment.

6.3 Methods and materials for containment and cleaning up:
Dike to contain the spill. Absorb with inert absorbent material (sand, earth, vermiculite) and place in suitable labelled, closed containers for disposal as hazardous waste. Do not flush to drains.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. General precautions for safe use:
Avoid contact with skin and eyes and avoid breathing vapour/mist. Handle with adequate local exhaust ventilation. Avoid skin exposure followed by sunlight (photosensitisation). Use designated, closed/contained treatment systems where practical.

B. Technical recommendations for the prevention of fires and explosions:
Keep away from open flame and other ignition sources. Bond/ground equipment during bulk transfer.

C. Technical recommendations on general occupational hygiene:
Do not eat, drink or smoke while handling. Wash hands and exposed skin thoroughly after handling and before breaks.

D. Technical recommendations to prevent environmental risks:
Prevent product or spillage from reaching drains, soil or water courses. Follow protective measures of section 8. Treatment facilities should have appropriate containment/effluent controls.

7.2 Conditions for safe storage, including any incompatibilities:
A. Specific storage requirements:

Storage temperature	Ambient; above pour point to maintain pumpability
Storage condition	Closed, labelled tanks/containers, bunded area
Shelf life	Typical value – refer to current specification sheet

B. General conditions for storage:
Store away from incompatible materials (section 10), strong oxidisers and sources of ignition. Keep containers tightly closed, in a well-ventilated, bunded area, locked up and restricted to authorised personnel.

7.3 Specific end use(s):
Industrial wood-preserved intermediate and chemical feedstock as described in Section 1.2. Except for the instructions already specified, it is not necessary to provide any special recommendation regarding other uses of this product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:
Occupational exposure limits applicable to coal tar/creosote-derived volatiles (as coal tar pitch volatiles, benzene-soluble fraction), as published in widely referenced international OEL lists, used here as reference guidance:

Identification	Occupational Exposure Limit Type	Value
Coal tar/creosote volatiles (as benzene-soluble fraction) CAS: 8001-58-9	Time Weighted average concentration (8 hrs)	0.2 mg/m³ (as benzene solubles)

8.2 Appropriate engineering controls:
Use closed/contained treatment processes and local exhaust ventilation to keep exposure below the limits in 8.1. Provide eyewash and safety shower facilities near the work area.

B. Respiratory protection:
Use an organic vapour cartridge respirator where exposure limits may be exceeded; use supplied-air respiratory protection in poorly ventilated or enclosed spaces.

C. Specific protection for the hands:
Chemical-resistant gloves (e.g. nitrile or neoprene, impervious to the product). Replace at any sign of damage or penetration.

D. Eye and face protection:
Chemical splash goggles or full-face shield mandatory.

- E. Bodily protection:**
Impervious chemical-resistant protective clothing and footwear. Avoid prolonged skin exposure followed by direct sunlight (photosensitisation risk).
- F. Additional emergency measures:**
Emergency shower (ANSI Z358-1) and eyewash stations should be readily available near the work area.

Environmental exposure controls:
Avoid environmental spillage of the product and its container. See subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	
Physical state at 20°C	Liquid (may partially crystallise on standing)
Appearance	Oily liquid
Color	Yellow to dark brown/black
Odor	Strong, characteristic tar-like/phenolic odour
Odour threshold	Not established
Volatility	
Boiling range at atmospheric pressure	Approx. 200 – 280°C (light distillate cut, typical)
Vapour pressure at 20°C	Typical value – refer to current specification sheet
Evaporation rate at 20°C	Typical value – refer to current specification sheet
Product Description	
Density / Relative density at 20°C	1.00 – 1.08 g/cm³
Dynamic / Kinematic viscosity	Typical value – refer to current specification sheet
Concentration	Non-applicable (complex UVCB substance)
pH	Not relevant (water-insoluble oil)
Vapour density at 20°C	> 1 (heavier than air)
Partition coefficient n-octanol/water	Typical value – refer to current specification sheet (variable, complex mixture)
Solubility in water at 20°C	Slightly soluble; soluble in most organic solvents
Decomposition temperature	Not established
Melting point/freezing point	Approx. 0 to -5°C (crystallisation point, typical)
Flammability	
Flash Point	> 74°C (typical, light grade)
Flammability (solid, gas)	Non-applicable (liquid)
Autoignition temperature	Typical value – refer to current specification sheet
Lower / Upper flammability limit	Not established
Particle Characteristics	
Median equivalent diameter	Non-applicable (liquid)

Values are typical for the commercial light creosote oil cut – refer to current specification sheet for batch-specific figures; composition is variable (UVCB substance).

9.2 Other information:

Explosive properties	Not relevant
Oxidising properties	Not an oxidiser
Corrosive to metals	Not significantly corrosive
Heat of combustion	Typical value – refer to current specification sheet
Phenolic content	Typical value – refer to current specification sheet
PAH content	Present at variable levels – refer to current specification sheet

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:**
Stable under normal conditions of use. May react with strong oxidising agents.
- 10.2 Chemical stability:**
Chemically stable under the indicated conditions of storage, handling and use. May partially crystallise/separate on cooling; re-homogenise before use.
- 10.3 Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions are not expected other than those noted in 10.1 and 10.5.

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Not applicable	Avoid heating above flash point	Avoid prolonged skin exposure followed by sunlight	Not applicable

10.5 Incompatible materials:

Strong Oxidisers	Strong Acids/Alkalis	Ignition Sources
Avoid direct contact	Avoid direct contact	Avoid contact

- 10.6 Hazardous decomposition products:**
On thermal decomposition/fire: dense smoke, polycyclic aromatic hydrocarbons, carbon monoxide, carbon dioxide and phenolic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects:**
In case of exposure that is repetitive, prolonged, or at concentrations higher than the recommended occupational exposure limits, adverse health effects may result depending on the means of exposure:
- A. Ingestion (acute effect):**

Harmful if swallowed. May cause irritation to the mouth, throat and gastrointestinal tract, nausea, vomiting and abdominal pain.

B. Inhalation (acute effect):

Vapour/mist causes irritation to the respiratory tract; may cause coughing and headache at elevated concentrations.

C. Contact with skin and eyes (acute effect):

Causes skin and eye irritation. Prolonged/repeated skin contact followed by sunlight exposure may cause photosensitisation (enhanced burning/blistering reaction).

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity):

Classified Carc. 1B (H350 – may cause cancer) based on well-established evidence for coal-tar/creosote-type distillates, owing to their polycyclic aromatic hydrocarbon content. Classified Muta. 2 (H341 – suspected of causing genetic defects). Reproductive toxicity classification criteria are not met based on available data.

E. Sensitizing effects:

Classification criteria for respiratory sensitisation are not met based on available data; photosensitising/irritant skin effects are recognised (see C above).

F. Specific target organ toxicity (STOT) – single exposure:

May cause respiratory tract irritation at elevated vapour/mist concentrations.

G. Specific target organ toxicity (STOT) – repeated exposure:

Classification criteria are not met based on available data beyond the CMR effects noted above.

H. Aspiration hazard:

May be harmful if aspirated into the lungs following ingestion/vomiting.

Product-specific toxicological information:

Identification	Acute Toxicity	Genus
Light Creosote Oil CAS: 8001-58-9	LD50 oral: 400 – 2000 mg/kg bw (Typical value – refer to current specification sheet)	Rat
	LD50 dermal: > 2000 mg/kg bw	Rabbit

SECTION 12: ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

12.1 Toxicity:

Identification	Acute Toxicity	Species	Genus
Light Creosote Oil CAS: 8001-58-9	LC50: < 1 mg/L (96h) (Typical value – refer to current specification sheet)	Non-applicable	Fish
	EC50: < 1 mg/L (48h) (Typical value – refer to current specification sheet)	Non-applicable	Crustacean

12.2 Persistence and degradability:

Contains components that are persistent in the environment; PAH fraction in particular is slowly degraded and may persist in soil/sediment.

12.3 Bioaccumulative potential:

Several PAH constituents are known to have bioaccumulation potential; overall product bioaccumulation not established.

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
Typical value – refer to current specification sheet	Typical value – refer to current specification sheet	Low to moderate mobility	Low to moderate mobility

12.5 Results of PBT and vPvB assessment:

Contains constituents (certain PAHs) that may meet PBT/vPvB-type persistence/bioaccumulation criteria; treat as environmentally hazardous accordingly.

12.6 Other adverse effects:

Toxic to aquatic organisms even at low concentrations; avoid any release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Dispose of as hazardous waste via a licensed waste disposal contractor, in accordance with local and national regulations for coal-tar/creosote-type wastes. Do not discharge to drains or water courses. Avoid treatments for packaging as far as possible; use dedicated containers.

Refer to national and local regulations on hazardous waste management.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023):

14.1 UN number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Creosote, light oil)
14.3 Transport hazard class(es)	3 (Subsidiary risk labels: 6.1, 9, as applicable to specific grade)
14.4 Packing group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22):

14.1 UN number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Creosote, light oil)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Marine pollutant	Yes
14.6 Special precautions for user	EmS Codes: F-E, S-E
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Applicable for bulk marine transport – consult current IBC Code listing

Transport of dangerous goods by air (IATA/ICAO 2024):

14.1 UN number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Creosote, light oil)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazard	Yes

14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product. As a wood-preserved/biocidal-type formulation component, additional registration/authorisation requirements under applicable national biocide regulations may apply to downstream finished products.

Other legislation:

- Manufacture, Storage and Import of Hazardous Chemicals Rules 1989
- The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
- The Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996
- Public Liability Insurance Act, 1991

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3:

- H302: Harmful if swallowed.
- H341: Suspected of causing genetic defects.
- H350: May cause cancer.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Advice related to training:

Specific training is recommended for staff handling this product, given its established carcinogenicity and mutagenicity classification, to ensure full comprehension and interpretation of this safety data sheet and the product label, and strict adherence to the PPE and hygiene measures in Sections 7 and 8.

Principal bibliographical sources:

The United Nations Economic Commission for Europe (UNECE); publicly available GHS classification references for coal tar/creosote distillates.

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | PAH: Polycyclic Aromatic Hydrocarbon | UVCB: Unknown or Variable composition, Complex reaction products or Biological materials | PBT: Persistent, Bioaccumulative and Toxic | vPvB: very Persistent and very Bioaccumulative | IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET