ShaliHCO

Heavy Creosote Oil

STP Limited

Material Safety Data Sheet

Identification of the substance/preparation and of the company/undertaking

Trade Name	**ShaliHCO** **(Synonyms**: Creosote Oil)
Intended Use	Wood Preservative, Carbon Black feed stock, fuel
Company Name	**STP Limited** 43 Nehru Place 707 Chiranjiv Towers, New Delhi 110019, India Phone : +91 11 46561359 Fax : +91 11 46561358
Emergency Information	Phone : +91 81302 98888 Fax : +91 11 46561358

[1] Composition / information on ingredients

Ingredient	CAS Number	Concentration(%)	ExposureLimits	
			OSHAPEL	ACGIHTLV
Coal Tar Creosote	8001-58-9	100	0.2 mg/m³	0.2 mg/m³
Naphthalene	91-20-3	1.65	10 mg/³	50 mg/³
Phenanthrene	85-01-8	14.13	0.2 mg/m³	0.2 mg/m³
Flouranthene	206-44-0	7.41	Not determined	Not determined
Pyrene	129-00-0	5.14	None	None
Acenaphthene	83-32-9	6.00	Not determined	Not determined
Fluorene	86-73-7	4.39	None	None
Dibenzofuran	132-64-9	3.13	Not determined	Not determined
Anthracene	120-12-7	3.76	0.2 mg/m³	0.2 mg/m³
Benzo (a) anthracene	56-55-3	1.40	None	None
2-methylnaphthalene	91-57-6	4.84	Not determined	Not determined
1-methylnaphthalene	90-12-0	1.80	Not determined	Not determined
Indene	95-13-6	1.02	None	None

[2] Hazards Identification

Emergency Overview

Creosote is a brown to black oily liquid with a penetrating smoky odour. Vapour causes moderate to severe irritation of eyes, nose, throat and respiratory tract

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Signs and Symptoms of Potential Overexposure	Eyes: Overexposure may cause Irritation Skin: Contact can result in irritation. Inhalation: Overexposure may cause irritation to respiratory tract. Ingestion: Irritation of the gastrointestinal tract followed by

	nausea and vomiting. Abdominal discomfort, rapid pulse, etc.	
Primary Route(s) of Entry	Inhalation	Yes
	Skin	Yes
	Ingestion	Yes
Medical Conditions Aggravated by Exposure	Persons with pre-existing skin, liver or kidney disorders may be at increased risk from over exposure to this material. This is not likely to be a problem when appropriate procedures are used to minimize exposure	

[3] First-aid Measures

Skin Contact:	Take off contaminated clothing. Rinse skin with plenty of water and ask a doctor for advice
Eye Contact:	Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids. GET MEDICAL ATTENTION.
Inhalation:	Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and atrest. GET MEDICAL ATTENTION.
Ingestion:	DO NOT induce vomiting due to the solvent content of this product. Give oxygen if respiration is shallow. GET MEDICALA TTENTION.
Noteto Physician:	Product is irritating to skin, eyes and respiratory tract. Treatment should be based on the judgment of the physician in response to there actions of the patient.

[4] Fire-fighting Measures

Flash Point:>105 ^{O}C	Metho PM Closed Cup	Auto ignition Temperature approx > 336 ^{O}C
Flammable Limits:	**UFL**: Not available	**LFL**:Not available
Flammability Classification (OSHA):	Not applicable	
Hazardous Products of Combustion:	Toxic vapours may be released upon thermal decomposition. (NOx, Cox, Sox, PAHs)	
Potentialf or Dust Explosion:	Not applicable	
Special Flammability Hazards:	Unusual fire and explosion hazards- Water/fog is recommended for control of unconfined oil fires. Water may cause frothing or eruption in closed tank.	
Appropriate Extinguishing Media:	Water fog, foam, carbon di-oxide, dry chemical, sand, Soap Stone Powder, steam. Water spray can control unconfined enamel fires, but may cause frothing or eruption in closed tanks.	
Basic Fire Fighting Guidance	Firefighters should wear self-contained breathing apparatus and full protective equipment. Normal firefighting procedures may be used. Skin and eyes contact should be avoided.	

[5] Accidental Release Measures / Spills and Leaks

Containment Techniques:	For small spills, use suitable absorbent material and collect for later disposal. For large spills, the area may require diking to contain the spill.
Clean-up Procedures & equipment:	Wear protective equipment during clean up. Remove all ignition sources. Ventilate area of spill or leak. Collect material for later disposal. After collection of material, flush area with water.
Evacuation Procedure:	Isolate the hazard and deny entry to unnecessary and unprotected personnel.
Special Instructions:	Remove all contaminated clothing to prevent further absorption. Decontaminate affected personnel using the first aid procedures in Section 4. Leather shoes that have been saturated must be discarded.
Special Reporting Requirements:	Notify appropriate authorities if required by regulation.

[6] Handling & Storage

Storage Precautions:	Protect containers from physical damage. Outside or isolated storage is preferable. Inside storage should be in a flammable liquids storage room or cabinet. This material is flammable.
Storage Recommendations:	Maintain dry, ventilated conditions for storage. Ensure that ambient temperature of storage areas does not exceed 54°C to prevent volatilization of solvents.
Practices to Minimise Risk:	Wear protective equipment when performing maintenance on contaminated equipment.

[7] Exposure Controls / Personal Protection

Personal Protective Equipment:	Use NIOSH/ISI-approved air purifying respirator with organic vapour cartridges or a continuous flow positive pressure air-supplied respirator as necessary for protection against organic solvent vapour. Use chemical goggles, face shields, boots and impervious clothing and gloves where necessary to prevent exposures. Contact lenses should not be worn when handling this material. Do not smoke or eat in areas where this material is handled. Wash hands thoroughly before eating or smoking.
Respirator Caution:	Observe OSHA regulations for respirator use (29 CFR 1910.134). Air-purifying respirators must not be used in oxygen-deficient atmospheres.

[8] Ventilation

Ventilation:	All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.
Other Engineering Controls:	All available engineering controls to minimize risk should be used.

[9] Physical & Chemical Properties

Molecular Formula:	Mixture
Appearance, State & Odour (ambient temp.)	Dark brown to black oily liquid
Vapour Pressure	80 mm Hg @ 100 ^{O}C 225 mm Hg @125 ^{O}C 370 mm Hg @150 ^{O}C
Boiling Point:	194-400 ^{O}C
Solubility in Water:	Insoluble
Specific Gravity:	1.05 - 1.09 @ 25 ^{O}C

[10] Stability & Reactivity

Chemical Stability:	Stable in normal condition. Decomposes on heating with formation of oxides
Conditions to Avoid:	Mixing of Chlorosulfonic acid and creosote oil in closed container can cause an increase in temperature and pressure.
Hazardous Polymerisation:	Material does not decompose under normal conditions of use. When heated to extreme temperatures, creosote emits acrid smoke.

[11] Toxicological Information

Acute Oral LD_{50}:	725mg/kg	**Species:**	Rat
Acute Dermal LD_{50}:	Not available	**Species:**	Not available
Delayed Affects	Several studies in mice have shown the formation of tumor after dermal exposure to creosote		
Skin/Eye Irritation:	Mild to moderate skin/eye irritant		
Additional Toxicity Information:	Mixing of Chlorosulfonic acid and creosote oil in closed container can cause an increase in temperature and pressure		

[12] Ecological Information

Ecotoxicity:	May be toxic to aquatic wildlife
Environmental Fate:	No data is available for this particular mixture.

[13] Disposal Consideration

US EPA Waste Number:	Unused creosote product or product wastes are classified as an RCRA hazardous waste. The RCRA ID number is: U051
Classification of Waste as manufactured:	Hazardous. Note: Generator is responsible for proper waste characterization.

Waste Disposal:	The information offered here is for the product as shipped. Mixing with other materials may significantly change the characteristics.

[14] Transport Information

DOT/ IATA/IMDG Proper Shipping Name:	Environmentally Hazardous substance, Liquid (Creosote), 9 UN3082
Packing Group	III

[15] Regulatory Information (Risk & Safety Phrases)

UNITEDSTATESEPA	EPAReg.No.61483-8, EPA Signal Word–CAUTION
SARA313 classification:	Immediate, Delayed, Fire
Other Regulatory Listings:	For some application, Creosote is also regulated as a 'Restricted Use' pesticide .
Special Shipping Information:	Environmentally Hazardous substance, liquid.

[16] Other Health & Safety Information

Precautionary Statement:	Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data as a supplement to other information gathered by and make independent judgments of suitability of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

ShaliPoxy™ CTE 503 (Component B)

Anti-corrosive / Protective Flexible 500 Micron Coal Tar Epoxy Coating

STP Limited

Material Safety Data Sheet

Identification of the substance/preparation and of the company/undertaking

Trade Name	**ShaliPoxy CTE 503** **(Synonym**s: Coal Tar Epoxy, Component-B)
Intended Use	Used to protect Steel, Concrete Structure, Timber
Company Name	**STP Limited** 43 Nehru Place 707 Chiranjiv Towers, New Delhi 110019, India Phone : +91 11 46561359 Fax : +91 11 46561358
Emergency Information	Phone : +91 81302 98888 Fax : +91 11 46561358

[1] Composition / information on ingredients

Ingredient	CAS Number	Concentration (%)	Exposure Limits	
			OSHA PEL	ACGIH TLV
Epoxy Resin	25068-38-6	80-100	Not available	Not available
Magnesium Silicate	14807-96-6	10-20	2 mg/m³	--

[2] Hazards Identification

Emergency Overview It is very unlikely that normal work operations with epoxy system could produce concentrations that are harmful to human.	
Signs and Symptoms of Potential Overexposure	The vapours associated with this product are irritating to the skin, eyes and respiratory tract. The solvent used in this product is a mild to moderate skin irritant and may be absorbed if the materials on the skin for prolonged periods of time. Chronic exposures to the solvent in this material have been shown to lead to dermatitis. Systemic effects due to the solvent may include drowsiness, headache, dizziness, loss of coordination, euphoria, and possibly loss of consciousness. The material is also considered to be a mild to moderate eye irritant based on information for the individual components. The acute toxicity of this mixture has not been established. Based on information for the individual components in this material, it is assumed that this material will be moderately toxic via acute oral

	exposures. Symptoms of oral poisoning may include those listed previously, as well as nausea, vomiting, burning sensation of the mouth and excessive salivation. High vapour concentrations or chronic exposure to levels above the exposure limits (for the solvent) may lead to systemic symptoms, such as those listed previously.	
Primary Route(s) of Entry	Inhalation	Yes
	Skin	Yes
	Ingestion	Yes
Medical Conditions Aggravated by Exposure	Persons with pre-existing skin, liver or kidney disorders may be at increased risk from over exposure to this material. This is not likely to be a problem when appropriate procedures are used to minimize exposure	

[3] First-aid Measures

Skin Contact:	Wash exposed area twice with waterless hand cleaner, soap and water or a mild detergent. DO NOT use solvents on skin, as they may promote absorption of this material. The exposed area should be examined by medical personnel if irritation or pain persists after washing.
Eye Contact:	Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids. GET MEDICAL ATTENTION.
Inhalation:	Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. GET MEDICAL ATTENTION.
Ingestion:	DO NOT induce vomiting due to the solvent content of this product. Give oxygen if respiration is shallow. GET MEDICAL ATTENTION.
Note to Physician:	Product is irritating to skin, eyes and respiratory tract. Treatment should be based on the judgment of the physician in response to the reactions of the patient.

[4] Fire-fighting Measures

Flash Point: >150 ^{O}C	**Method**: PMA	**Auto ignition Temperature**: > 500 ^{O}C
Flammable Limits:	**UFL**: NA	**LFL**: NA
Flammability Classification (OSHA):	The product is not flammable.	
Hazardous Products of Combustion:	Irritating and/or toxic fumes may be released if this material is burned.	
Potential for Dust Explosion:	Not applicable	
Special Flammability Hazards:	At elevated temperatures (>254 ^{O}C), solvent volatalisation and decomposition may occur which might present a fire or explosion hazard.	
Appropriate Extinguishing	Water fog, foam, carbon di-oxide, dry chemical	

Media:	
Basic Fire Fighting Guidance	Firefighters should wear self-contained breathing apparatus and full protective equipment. Normal firefighting procedures may be used. Skin contact and/or breathing of vapours should be avoided.

[5] Accidental Release Measures / Spills and Leaks

Containment Techniques:	For small spills, use suitable absorbent material and collect for later disposal. For large spills, the area may require diking to contain the spill.
Clean-up Procedures & equipment:	Wear protective equipment during clean up. Remove all ignition sources. Ventilate area of spill or leak. Collect material for later disposal. After collection of material, flush area with water.
Evacuation Procedure:	Isolate the hazard and deny entry to unnecessary and unprotected personnel.
Special Instructions:	Remove all contaminated clothing to prevent further absorption. Decontaminate affected personnel using the first aid procedures in Section 4. Leather shoes that have been saturated must be discarded.
Special Reporting Requirements:	Notify appropriate authorities if required by regulation.

[6] Handling & Storage

Storage Precautions:	Protect containers from physical damage. Outside or isolated storage is preferable. Inside storage should be in a flammable liquids storage room or cabinet. This material is flammable.
Storage Recommendations:	Maintain dry, ventilated conditions for storage. Ensure that ambient temperature of storage areas does not exceed 54°C to prevent volatilization of solvents.
Practices to Minimise Risk:	Wear protective equipment when performing maintenance on contaminated equipment.

[7] Exposure Controls / Personal Protection

Personal Protective Equipment:	Use NIOSH/ISI-approved air purifying respirator with organic vapour cartridges or a continuous flow positive pressure air-supplied respirator as necessary for protection against organic solvent vapour. Use chemical goggles, face shields, boots and impervious clothing and gloves where necessary to prevent exposures. Contact lenses should not be worn when handling this material. Do not smoke or eat in areas where this material is handled. Wash hands thoroughly before eating or smoking.
Respirator Caution:	Observe OSHA regulations for respirator use (29 CFR 1910.134). Air-purifying respirators must not be used in oxygen-deficient atmospheres.

[8] Ventilation

Ventilation:	All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.
Other Engineering Controls:	All available engineering controls to minimize risk should be used.

[9] Physical & Chemical Properties

Molecular Formula:	Mixture
Appearance, State & Odour (ambient temp.)	clear to amber liquid
Vapour Pressure	40 mbar @ 25 ^{O}C
Boiling Point:	Approx. 177 ^{O}C
Solubility in Water:	Insoluble
Specific Gravity:	1.6 ± 0.05 @ 30 ^{O}C

[10] Stability & Reactivity

Chemical Stability:	Stable
Conditions to Avoid:	Avoid exposures to temperatures >254°C
Hazardous Polymerisation:	Will not take place

[11] Toxicological Information

Acute Oral LD_{50}:	30000 mg/kg		**Species:**		Rat
Acute Dermal LD_{50}:	>43000 mg/kg.,		**Species:**		Rabbit
Acute Inhalation LC_{50}:	>20 ml/kg	**Duration:**	4 hr.	**Species:**	Rat
Skin/Eye Irritation:	Mild to moderate skin/eye irritant				
Additional Toxicity Information:	Note: LD_{50}/LC_{50} values reported above are for mixed Epoxy Resin, which make up the predominant proportion of this mixture.				

[12] Ecological Information

Ecotoxicity:	No data is available for this particular mixture.
Environmental Fate:	No data is available for this particular mixture.

[13] Disposal Consideration

Waste Disposal:	Dispose of this material in accordance with standard practice

	for disposal of potentially hazardous materials as required by applicable by regulations. Note that disposal regulations may also apply to empty containers and related equipments.

[14] Transport Information

DOT / IATA/ IMDG Proper Shipping Name:	Not regulated		
Packing Group	NA		
Emergency Guidebook Numbers:	**NAERG**: None	**EMS**: NA	**MFAG**: 311,312

[15] Regulatory Information (Risk & Safety Phrases)

OSHA Hazards:	Possible Carcinogen. Irritant. Flammable Liquid
Other Regulatory Listings:	None
Special Shipping Information:	None

[16] Other Health & Safety Information

Precautionary Statement:	Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data as a supplement to other information gathered by and make independent judgments of suitability of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.