Safety Data Sheet
Refined Tar

1/24/2019 Version 7 SDS No. 5

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Refined Tar
CAS Number: 68187-57-5
Chemical Name: Aromatic pitch
Index Number: 648-076-00-X
EINECS Number 269-109-0
Synonyms: Modified RT-12, RT-9, RT-12, RT-240
Product Use: driveways, roadways, roofing, manufacturing
Company Information: Lone Star Specialty Products, LLC
6412 U.S. Highway 259 South
Lone Star, TX 75668 USA

Emergency Phone Number (24 hr.): 800-424-9300 (CHEMTREC)
Non-Emergency Phone Number: 903-656-2536
Non-Emergency FAX Number: 903-656-2151
Web Information www.lonestarspecialties.net

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview: Aromatic pitch is a brown to black, oily liquid with a strong aromatic coal tar odor. This substance has been associated with acute and chronic health effects, including cancer. Material will burn if ignited. Harmful if inhaled. Causes skin irritation. May cause eye and respiratory tract irritation.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Primary Routes of Exposure: Eyes, dermal, inhalation, ingestion.
Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation This substance causes substantial but temporary eye injury. It is harmful if swallowed or absorbed through skin. Exposure to the chemical causes eye, skin and respiratory tract irritation. Symptoms of systemic poisoning include nausea, salivation, vomiting, respiratory difficulties, dizziness, headache, loss of pupillary reflex, cyanosis, hypothermia, profuse sweating, and mild convulsions. Prolonged or frequent exposure may cause allergic reactions in some individuals.
Potential Chronic Health Effects: CARCINOGENIC EFFECTS: Classified 1 (Proven for human.) by IARC, 1 (Clear evidence; known carcinogen) by NTP.
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.
The substance may be toxic to skin. Repeated or prolonged exposure to the substance can produce target organs damage
Classification according to Regulation (EC) No 1272/2008
GHS08 health hazard

Muta. 1B	H340 May cause genetic defects.
Carc. 1A	H350 May cause cancer.
Repr. 1B	H360 May damage fertility or the unborn child.

Prolonged and repeated skin exposure over the years in the absence of recommended hygiene practices may lead to changes in skin pigmentation, benign skin growth, and in some cases, result in skin cancer. Prolonged or repeated inhalation exposure may lead to respiratory system effects as inflammation and possibly changes in liver, thyroid and blood elements.
Medical Conditions Aggravated by Exposure: Persons with preexisting skin disorders or central nervous functional illnesses may be at increased risk from overexposure. Exposure to vapor may aggravate preexisting lung condition. Persons with glucose-6-phosphate dehydrogenase deficiency of the red blood cells are more susceptible to hemolytic anemia.
Signs and symptoms **Irritation** of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Defatting of the skin. Rash

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

COMPOSITION:

			Exposure Limits	
Name	**CAS #**	**% by Weight**	**OSHA PEL**	**ACGIH TLV**
Aromatic pitch	68187-57-5	100	0.2 mg/m^3 as 8-hr TWA (coal tar pitch volatiles) TWA – 5 mg/m^3	0.2 mg/m^3 as 8-hr TWA (coal tar pitch volatiles)

SECTION 4: FIRST AID MEASURES

IF IN EYES: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Rinse mouth thoroughly. Do not induce vomiting unless told to do so by the poison control center or doctor. If vomiting occurs, keep head low so that stomach content does not get into lungs. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops Destroy or thoroughly clean contaminated shoes.
IF INHALED: Move person to fresh air. If breathing is difficult, give oxygen. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Vomiting may cause aspiration pneumonia. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.
Symptoms may be delayed.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: CLOSED CUP: 96°C (204.8°F) **Method:** PMCC
Flammable Limits: **UFL:** Not available **LFL:** Not available
Flammability Classification: Not available
Hazardous Products of Combustion: Toxic vapors may be release upon thermal decomposition (nitrogen oxides, carbon monoxide, carbon dioxide, sulfur dioxide, PAH's)
Potential for Dust Explosion: . Not applicable
Special Flammability Hazards: Aromatic pitch at elevated temperatures may generate vapors that may ignite in the presence of air and a source of ignition. Closed containers may explode when exposed to extreme heat. On ignition it burns with reddish, luminous, and very sooty flame
Fire Fighting Media and Instructions: Water fog, carbon dioxide, dry chemical, foam, sand, or steam. Water spray may cause frothing or eruption in closed tanks. Do not use water jet.
Protective Equipment: Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Water runoff can cause environmental damage. Use compatible foam to minimize vapor generation as needed.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Containment Techniques: Contain the spilled material using inert solids (i.e., sand, earth, etc.) and, if hot, allow the material to cool. Collected material may then be shoveled into disposal containers.
Cleanup Procedures & Equipment: Wear protective equipment during cleanup. Remove all ignition sources. Ventilate area of spill or leak.
Evacuation Procedures: Isolate the release area and deny entry to unnecessary and unprotected personnel.
Special Instructions: Avoid exposure to hot material during cleanup. Ensure thorough decontamination of the release area and cleanup personnel. Contaminated materials must be handled and managed as RCRA hazardous waste.
Special Reporting Requirements: not applicable

SECTION 7: HANDLING AND STORAGE

Storage Precautions: Protect containers from physical damage, sparks and flame.
Storage Recommendations: Outside or detached storage is preferable. Maintain dry, ventilated conditions for storage. Containers should be periodically inspected.
Precautions for Unique Hazards: Not applicable
Practices to Minimize Risk: Wear appropriate protective equipment when performing maintenance on contaminated equipment. Avoid prolonged or repeated contact with skin or breathing of vapors. Do not smoke or eat in areas where the material is handled. Wash hands thoroughly before eating, drinking, smoking or using the toilet. A complete soap and water shower should be taken at the end of each work day. Contaminated clothing should not be re-worn until cleaned. Launder contaminated clothing separately from other laundry before reuse.
Special Handling Equipment: Closed system handling of aromatic pitch may create excessive vapor concentrations in confined spaces, i.e., tanks, rail cars, tank trailers. Follow appropriate confined space entry procedures, including wearing protective equipment, when entering any confined space that has been in coal tar service.
Dangerous Incompatibility Reactions: Keep away from strong oxidizing agents.
Incompatibility with Materials of Construction: None known

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:	**OSHA PEL:**	0.2 mg/m^3 as 8-hr TWA (coal tar pitch volatiles)	**ACGIH TLV:**	0.2 mg/m^3 as 8-hr TWA (coal tar pitch volatiles)

Personal Protective Equipment: Use NIOSH-approved chemical cartridge respirator with organic vapor cartridges, or any supplied-air respirator as necessary for protection from coal tar distillate vapors (which may contain coal tar pitch volatiles). Wear impervious gloves (i.e., latex rubber), boots, work uniform and safety glasses or chemical goggles. Application of certain protective creams for coal tar products and sunscreens (SPF of at least 15) before and during work may be beneficial in reducing the risk of overexposure.

Respirator Caution: Observe OSHA regulations for respirator use (29 CFR 1910.134). Air-purifying respirators must not be used in oxygen-deficient atmospheres.

Ventilation: All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.

Other Engineering Controls: All appropriate engineering controls should be used to minimize exposure potential.

Thermal Hazards: When handling hot distillate (i.e., taking samples), wear appropriate thermal protection equipment and use tongs as needed. Use of chemical goggles or face shields is highly recommended when handling heated material.

Additive or Synergistic Effects: Overexposure to this material causes photosensitization of the skin. See sunscreen recommendations above.

Hazardous Components greater than 1%

			Exposure Limits	
Name	**CAS #**	**% by Weight**	**OSHA PEL**	**ACGIH TLV**
Naphthalene	91-20-3	<20	10 ppm (50 mg/m^3) TWA	10 ppm (52 mg/m^3) TWA
Anthracene	120-12-7	<2.5	0.2 mg/m^3 TWA (benzene soluble fraction, coal tar pitch volatiles)	0.2 mg/m^3 TWA (benzene soluble fraction coal tar pitch volatiles)
Benzo[a]pyrene	50-32-8	<2.0	0.2 mg/m^3 TWA (benzene soluble fraction, coal tar pitch volatiles)	0.2 mg/m^3 TWA (benzene soluble fraction coal tar pitch volatiles)
Benzene	71-43-2	<2	1 ppm TWA	10 ppm (32 mg/m3) TWA

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Color: Dark brown to black; 2.5Y2/2 to 2.5Y4/2 on the Munsell color scheme
Physical State: Liquid
Chemical Formula: Complex hydrocarbon mixture which includes polynuclear aromatic hydrocarbons (PAHs)
Molecular Weight: Not applicable
Odor: Sharp, aromatic, wood-like odor
Boiling Point: 66°C (150.8°F)
Ignition Temperature: >560°C (DIN 52027)
Melting Point: Not applicable
Vapor Pressure: <0.1 kPa (@ 20°C)
Vapor Density: >1.0 (air = 1) (@ 20°C): 1, 1-1, 3 g/cm3 (ATSM D4052)
Specific Gravity: Not available
Bulk Density: 8.7 lbs/gal
Solubility in Water: 313 ug/ml
pH Value: 7 – 8
Stability: Stable at normal temperatures and pressure
VOC Content: Not available
Flash Point: 101°C (>214°F) (closed cup DIN 51758)
Viscosity: 133 mm/s at 20°C (DIN 53019)
Partition Coefficient: LogP is 3.247

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable at a temperature and pressure
Conditions to Avoid:	Contact with water can cause frothing or eruption of closed tanks.
Incompatibilities:	Strong oxidizers
Hazardous Decomposition Products:	Will not occur under normal conditions of use
Hazardous Polymerization:	Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Oral LD_{50}: 2451 mg/kg (male) **Species:** rat (estimated)

1893 mg/kg

Acute Dermal LD_{50}:	>2000 mg/kg	**Species:**	rabbit
Acute Inhalation LC_{50}:	>5 mg/L	**Species:**	rat
Skin/Eye Irritation:	Moderate skin irritant / Substantial but temporary eye irritant		
Target Organs:	Skin, possibly lungs, nasal passages, bladder, thymus, liver, kidney and central nervous system.		
Carcinogenicity:	Classified 1 (Proven for human.) by IARC, 1 (Clear evidence; known carcinogen.) by NTP.		
Teratogenicity:	Available data do not show any effects.		
Reproductive Effects:	Decreased body weights were observed in animal studies.		
Neurotoxicity:	No data available.		
Mutagenicity:	Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: skin		
Additional Toxicity Information:	Coal tar is a dermal sensitizer. Overexposures may lead to photosensitization of the skin.		

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Freshwater fish weighted LC_{50} = 405 ug/L
Freshwater invertebrate weighted EC_{50} = 267 ug/L
Saltwater fish weighted LC_{50} = 1150 ug/L
Saltwater invertebrate weighted EC_{50} or LC_{50} = 399 ug/L

Environmental Fate: PAHs in aromatic pitch undergo photo-oxidation from surface water, and photo-oxidation half-lives are short. Photo-oxidized products of PAHs are persistent in air, water and soils and are bio-accumulative. Some PAHs on surface may partition (adsorb) into soils and sediments, and those with 4-5 fused rings may stay longer in sediments. Some of these may partition (desorbed) into water again. PAHs do not show a huge degree of migration in soils. PAHs have a tendency to biodegrade in soils under aerobic conditions.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste codes
US RCRA Hazardous Waste K148
Disposal instructions Dispose in accordance with all applicable regulations.
Waste from residues / unused products Dispose of in accordance with all applicable regulations**.**

SECTION 14: TRANSPORT INFORMATION

Basic shipping requirements:
Proper shipping name

DOT Proper Shipping Name: When shipped < 212°F: RQ, UN3082, Environmentally Hazardous Substance, liquid, n.o.s., coal tar/petroleum (contains Benzo (a) pyrene & Dibenz (a, h) anthracene

IMO Proper Shipping Name: When shipped < 212°F RQ, UN3082, Environmentally Hazardous Substance, liquid, n.o.s., coal tar/petroleum (Contains Benzo (a) pyrene & Dibenz (a, h) anthracene

When shipped > 212°F, but < flash point: RQ, UN 3257 Elevated Temperature Liquid, n.o.s., coal tar/petroleum (contains Benzo (a) pyrene & Dibenz (a, h) anthracene

When shipped > flash point: RQ, UN 3256, Elevated Temperature Liquid, Flammable, n.o.s., coal tar/petroleum (contains Benzo (a) pyrene & Dibenz (a, h) anthracene

Hazard class 9, 3 (shipped > flashpoint)
Packing group III
Environmental hazards
Marine pollutant Yes
Special provisions 8, 146, IB3, T4, TP1, TP29
Additional information:
Packaging exceptions 155
Packaging non-bulk 203
Packaging bulk 241
Emergency Guidebook Numbers: NAERG:171 (128 for elevated temperature shipments)

SECTION 15 REGULATORY INFORMATION

Federal Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Naphthalene (CAS 91-20-3)
US EPCRA (SARA Title III – Reportable Quantity – **)**
Section 313 - Toxic Chemical: De minimis concentration Naphthalene (CAS 91-20-3) 0.1 %
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance Naphthalene (CAS 91-20-3) Listed.
CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4) Naphthalene: 100
Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
SARA 302 Extremely hazardous substance Not listed.
SARA 311/312 Hazardous chemical Yes
Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled
State Regulations: California Proposition 65 – Listed because known to cause cancer
WHMIS Classification (Canada)
WHMIS status Controlled
WHMIS classification D2A - Other Toxic Effects-VERY TOXIC D2B - Other Toxic Effects-TOXIC
WHMIS labeling
Inventory status
Country(s) or region Inventory name On inventory (yes/no)*
Canada Domestic Substances List (DSL) Yes
Canada Non-Domestic Substances List (NDSL) No
*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s)
EINECS Inventory: Listed
HMIS (USA):

Health Hazard: 1
Fire Hazard: 1
Reactivity: 0

National Fire Protection Association (USA):

Health: 1
Flammability: 1
Reactivity: 0

SECTION 16: OTHER INFORMATION

References:

1. 40 CFR Part 261
2. 49 CFR Part 172
3. 29 CFR § 1910.1000
4. 40 CFR § 302.4

Created: 01-28-2012
Last Updated: 02-01-2012, 05-20-2015, 8/28/2015 ADDED PICTOGRAMS; 9/9/2015 shipping information, 12/9/2016 added RT-9, 1/24/2019 revised synonyms.

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