

SLOSS INDUSTRIES CORPORATION

AUTHOR: Charles Jones

ORIGINAL DATE:

DOC. NUMBER

3/23/94

CO-EHS-MSDS-LO

APPROVED: Jim Henry

REVISION/DATE

2/02-11-05

DOCUMENT TYPE: (MATERIAL SAFETY DATA SHEET MSDS)

TITLE: LIGHT OIL MSDS

1. MATERIAL IDENTIFICATION

Manufacturer: Sloss Industries Corporation
3500 35th Avenue North
Birmingham, Alabama 35207

Phone numbers: Product information: 205/808-7916 or 205/808/7911
8:00 AM to 4:30 PM Monday through Friday
24Hr contact: 205/808-7846
Transportation Emergencies:
Call CHEMTREC: 1/800/424-9300

DOT number: UN 1136 (see section 14)

Shipping name: Coal tar distillates, flammable (contains benzene, toluene, xylene)

CAS name: Coke Oven Light Oil (Coal)

CAS number: 65996-78-3

Formula: Mixture containing Benzene, Toluene, Ethylbenzene and Xylene

NFPA rating: Health 2; Flammability 3; Reactivity 0

HMIS rating: Health 2; Flammability 3; Reactivity 0; Personal Protection H

Synonyms: Light Oil, BTX, Benzol, Coal Tar Distillate

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2. COMPONENTS

Light oil (CAS 65996-78-3) is a mixture typically consisting of:

<u>Material</u>	<u>CAS#</u>	<u>% by wt.</u>
Benzene	71-43-2	68
Toluene	108-88-3	24
Xylene	1300-73-8	7

These components are listed on the TSCA Inventory. See Sections 3, 8, and 11 for exposure information.

3. HAZARD IDENTIFICATION

Emergency Overview:

Yellowish liquid with a disagreeable sulfur odor. This material is highly flammable. May cause a flash fire. Cancer hazard. Avoid breathing vapors or mists as they can have a narcotic effect and light oil poses a cancer hazard. Avoid skin contact, may cause skin irritation and dermatitis. Keep away from sources of ignition. Use with adequate ventilation.

HEALTH:

Eyes: Avoid contact. Vapors may be irritating to the eyes.

Skin: Avoid contact. May cause skin irritation. Prolonged and repeated skin contact may cause drying, defatting, reddening and inflammation of skin (dermatitis).

Ingestion: Unlikely route of exposure. If ingested, may cause headache, drunkenness, nausea, vomiting, weakness, convulsions, unconsciousness and coma.

Inhalation: Overexposure may result in irritation of the respiratory tract and eyes. Prolonged exposure in significantly above the permissible exposure limits may result in drowsiness, headache, nausea, convulsions and unconsciousness. The benzene component of the material is a cancer hazard. Overexposure for many years has been associated with an increase in blood disorders(decrease in erythrocytes, leukocytes, platelets, and anemia) and cancer (leukemia).

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4. FIRST AID

Eyes: In the event of contact, wash eyes immediately with large amounts of water. Continue for at least 20 minutes, lift upper and lower lids occasionally. If irritation continues, get medical attention.

Skin: In the event of contact remove contaminated clothing. Wash affected area with soap and large amounts of water at least 15-20 minutes. If irritation continues, get medical attention.

Ingestion: Get medical treatment immediately. DO NOT induce vomiting. See note to physician below.

Inhalation: In the event of overexposure to concentrated vapors, immediately move the exposed person to fresh air. If they are not breathing give artificial respiration. If breathing appears difficult give oxygen. Get medical help immediately.

NOTE TO PHYSICIAN

Extreme care must be used to prevent aspiration. Gastric lavage with a cuffed endotracheal tube in place to prevent further aspiration should be done within 15 minutes. In the absence of depression or convulsions or impaired gag reflex emesis can also be induced using syrup of ipecac without increasing the hazard of aspiration. [Dreisbach, Handbook of poisoning, 12th ed.]

5. FIRE AND EXPLOSION DATA

This material poses a dangerous fire hazard when exposed to heat or flame. Vapors can form explosive mixtures. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Take necessary grounding and bonding precautions when transferring material.

Flash point: 60°F (16°C) TCC

Flammable limits (air % by vol):

- a. Lower explosive limit: 1.3% (Benzene component)
- b. Upper explosive limit: 7.1% (Benzene component)
- c. Autoignition: 928°F (498°C) (Benzene component)

Extinguishing media:

Alcohol foam, carbon dioxide, and dry chemical extinguishers are effective. Water may be an ineffective extinguisher but may be used to cool fire-exposed containers. Cont.

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5. FIRE AND EXPLOSION DATA cont.

Flash point: 60°F (16°C) TCC

Fire Fighting Instruction:

1. Evacuate unauthorized personnel. Approach fire from upwind.
2. Use self-contained positive pressure breathing apparatus and chemical resistant protective clothing.
3. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. (See 1990 Emergency Response Guidebook, guide 27.)

6. ACCIDENTAL RELEASE MEASURES

1. Evacuate unauthorized personnel and ventilate. Wear adequate personal protection while working with spill. See section 8.
2. Remove all sources of ignition. Stop leak if it can be done safely. Do not touch or walk through spilled material.
3. Small Spills: Take up sand or other absorbent material and place into containers for later disposal. See section 13.
4. Large Spills: Dike far ahead of spill for later disposal. No smoking, flames or flares in hazard area. Isolate hazard area and restrict entry. See section 13.
5. Do not leave spill unattended.

7. HANDLING AND STORAGE

Handling:

1. This material is highly flammable. Handle in a well ventilated area.
2. The benzene component of this material has a permissible exposure limit (PEL) of 1 ppm. Ventilation capable of maintaining exposure levels below this limit is recommended.
3. In cases where adequate ventilation is not possible, use a NIOSH/MSHA approved organic vapor respirator or airline supplied respirator depending on concentration.
4. Always wear proper personal protective clothing (see section 8).

Cont.

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7. HANDLING AND STORAGE cont.

Storage:

1. Store in a cool, well ventilated location away from heat, spark or flame.
2. Store separate from incompatible materials. See section 10.
3. Take necessary grounding and bonding precautions against build up of static electricity when transferring material.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

1. The benzene component of this material has a PEL of 1 ppm. Ventilation capable of maintaining vapor concentrations below the PEL is recommended.
2. If adequate ventilation is not possible use a NIOSH/MSHA approved organic vapor air purifying respirator or an airline supplied respirator depending on vapor concentration.
3. In routine handling of closed containers use chemical goggles and face shield, gloves, and splash apron.
4. Where direct contact is possible, use additional chemical resistant clothing.

Exposure Limits:

1. Benzene
OSHA PEL: 1ppm
STEL: 2.5ppm
ACGIH TLV: 0.5ppm
NIOSH REL: Ceiling of 0.1 ppm/60 minutes
2. Toluene
OSHA PEL: 100ppm
STEL: 150ppm
ACGIH TLV: 100ppm
STEL: 150ppm
NIOSH REL: 100ppm (ceiling of 200ppm/10 minutes)
3. Xylene
OSHA PEL: 100ppm
STEL: 150ppm
ACGIH TLV: 100ppm
STEL: 150ppm
NIOSH REL: 100ppm (ceiling of 200ppm/10 minutes)

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Flash point: 60°F (16°C) TCC

Appearance: Yellowish liquid

Odor: Disagreeable sulfur odor

Physical state: Liquid

Vapor density (air=1): 3.0

Boiling point: 176°F (80°C)

Solubility in water: 0.01%

Percent volatile by volume: 99%

Specific gravity: 0.877 at 60°F (15.5°C)

10. STABILITY AND REACTIVITY

a. Stability: Stable

b. Hazardous Polymerization: Will not occur

c. Incompatibility: Strong oxidizers acids, and sources of ignition. Avoid elevated temperatures and storage in locations with inadequate ventilation.

d. Decomposition products: Acid smoke, irritating fumes and toxic oxides of carbon.

11. TOXICOLOGICAL INFORMATION**ACUTE**LC₅₀ (inhalation rat) 3306 mg/kg/7 hours (Benzene component)LD₅₀ (rat-oral) 3306 mg/kg (Benzene component)

Irritation data:

Rabbit (eye) 2mg/24 hours - severe (Benzene component)

Toxicity data:

Mutagenic data (RTECS); Reproductive effects data (RTECS); Tumorigenic data (RTECS)

Cont.

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The above organizations consider the benzene component of this material to be a know carcinogen. Case reports and series have suggested a relationship between exposure to benzene and the occurrence of various types of leukemia. Case-control studies have also shown an increased odds ratio for exposure to benzene, but mixed exposure patterns and poorly defined exposures render their interpretation difficult. Chart studies have demonstrated an increased incidence of acute nonlymphocytic leukemia in workers exposed to benzene.

The following toxicological information is for the toluene component of this material. Overexposure to toluene can cause an increased heart rate. Toluene may cause cardiac sensitization. Repeated overexposure to the point of euphoria has caused encephalopathy, disequilibrium, bizarre behavior, and optic atrophy. Intentional sniffing can produce renal tubular defects with metabolic acidosis, and electrolyte abnormalities.

12. ECOLOGICAL INFORMATION

Environmental hazard. Keep out of waterways.

13. DISPOSAL INFORMATION

Upon disposal Coal Tar Light Oil may become an EPA hazardous waste due to Ignitability (D001). Also, it may be a characteristic waste due to a leachable benzene content of greater than 0.5ppm (DO18) as determined by the TCLP test. Benzene has a RCRA waste number of U019 and D018 and a CERCLA reportable quantity of 10 pounds. Recycle or dispose of in accordance with Federal, State, and Local regulations.

Please note this information is for Coal Tar Light Oil in its original form. Any alterations can void this information.

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14. TRANSPORTATION INFORMATION

Proper shipping name: Coal tar distillates, flammable (contains benzene, toluene, xylene)

Hazard class: 3 (Flammable)

UN No: UN 1136

DOT/IMO label: Flammable Liquid

Special provisions: IB2, T4, TP1

Packaging:

a. group: II

b. authorization: 49 CFR 173.203.242

c. exceptions: 150

Quantity limitations:

a. passenger, aircraft or rail: 5 Liters

b. cargo only, aircraft: 60 Liters

Stowage provisions: B

Reportable quantity:

Benzene 10 pounds

Toluene 1000 pounds

Xylene 1000 pounds

15. REGULATORY INFORMATION

TSCA status: On TSCA Inventory

CERCLA RQ:

Benzene 10 pounds

Toluene 1000 pounds

Xylene 1000 pounds

SARA TITLE III:

Section 203 TPQ: no

Section 304 EHS: no

Section 311/312: fire, immediate, delayed

Section 313: yes

California Proposition 65: yes

WHIMS: yes (0.1%)

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16. OTHER INFORMATION

Section(s) revised: All revised to new format and to include most up to date information.

MSDS date: 2/11/05

MSDS last revision: 12/13/04

The data of the Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material. While the data contained herein is based on technical data that Sloss Industries Corporation believes to be reliable, it is intended for use by persons having technical skill and at their own discretion and risk.