



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product code and name:

94002 EOCENE CRUDE OIL

Chemical name and/or family or description:

Crude Petroleum Oil

Telephone numbers:

Transportation emergency:

(504) 680-1900

CHEMTREC (USA): (800) 424-9300

Health emergency-Company: (504) 680-1900

MSDS Assistance (USA):(845)838-7204

Technical Information - Fuels, Fuel Additives: (845) 838-7611

Technical Information - Coolants: (845) 838-7444

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product and/or component(s)

Carcinogenic According to:

OSHA

IARC

NTP

-

<u>Name</u>	<u>Cas nr</u>	<u>Range in %</u>
Petroleum-crude oil	8002-05-9	100
Sulfur	7704-34-9	3 - 9.99
Benzene	71-43-2	0.1 - 0.99
1.00 ppm TWA-OSHA (SUBJECT TO 29 CFR 1910.1028)		
5.00 ppm STEL-OSHA		
0.50 ppm TWA-ACGIH (SKIN) (A1)		
2.50 ppm STEL-ACGIH		
Ethylbenzene	100-41-4	0.1 - 0.99
100.00 ppm TWA-OSHA		
125.00 ppm STEL-OSHA		
100.00 ppm TWA-ACGIH		
125.00 ppm STEL-ACGIH		

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

WARNING STATEMENT

DANGER !

EXTREMELY FLAMMABLE LIQUID AND VAPOR VAPOR MAY CAUSE FLASH FIRE
MAY CAUSE DIZZINESS AND DROWSINESS

CONTAINS OR MAY RELEASE HYDROGEN SULFIDE GAS (H₂S) H₂S GAS IS

HARMFUL OR FATAL IF INHALED H₂S GAS IS IRRITATING TO EYES AND

RESPIRATORY TRACT H₂S GAS MAY ACCUMULATE IN CONFINED SPACES

MAY CAUSE EYE IRRITATION

ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE

CONTAINS BENZENE - CANCER HAZARD

CONTAINS POLYNUCLEAR AROMATIC HYDROCARBONS WHICH MAY CAUSE

CANCER BASED ON ANIMAL DATA

CONTAINS CRUDE OIL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA

CONTAINS ETHYLBENZENE WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA

PRECAUTIONARY MEASURES:

-Keep away from heat, sparks or flame.

-Use only with adequate ventilation.

-H₂S gas deadens sense of smell. Do not depend on odor to detect presence of gas.

-This gas deadens sense of smell. Do not depend on odor to detect presence of gas.

-Use supplied air respiratory protection for cleaning large spills or upon entry into tanks, vessels, or other confined spaces.

-Avoid breathing vapor, mist, or gas.

-Avoid contact with eyes, skin, and clothing.

-Rescue procedures should be attempted ONLY after notifying others of emergency and ONLY if appropriate personal equipment is available.

-Keep container closed.

-Wash thoroughly after handling.

HMIS

Health: 1

Flammability: 4

Reactivity: 0

Special: -

NFPA

Health: 1

Flammability: 3

Reactivity: 0

Special: -

Primary Route of Exposure:

EYES

SKIN

INHALATION

EFFECTS OF OVEREXPOSURE

Acute:

Eyes:

May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Skin:

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact, see other effects, below, and Section 11 for

information regarding potential long term effects.

Prolonged, widespread, or repeated skin contact may result in the absorption of potentially harmful amounts of material.

Inhalation:

Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

Contains or may release hydrogen sulfide (H₂S) gas. H₂S concentrations above permissible concentrations can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomiting, diarrhea, and pulmonary edema. At concentrations above 300 ppm, respiratory paralysis, causing unconsciousness and death, can occur. Prolonged or repeated overexposure may result in the absorption of potentially harmful amounts of material.

Ingestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur. Aspiration may occur during swallowing or vomiting resulting in lung damage.

Sensitization Properties:

Unknown.

Chronic:

Prolonged and repeated exposure to benzene has been associated with aplastic anemia and acute myelogenous leukemia in humans.

Refer to Section 11 (Toxicological Information) for additional information.

Medical Conditions Aggravated by Over Exposure:

Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

None

4. FIRST AID MEASURES

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin:

Wash skin with plenty of soap and water until all traces of material are removed. Remove and clean contaminated clothing (See Other Instructions). Destroy non-resistant footwear. Get medical attention if skin irritation persists or contact has been prolonged.

Ingestion:

If person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation:

If inhaled, remove to fresh air. If not breathing or in respiratory distress, clear person's airway and start artificial respiration. With a physician's advice, give supplemental oxygen using a bag-valve mask or manually triggered oxygen supply.

Other Instructions:

Remove and dry-clean clothing soaked or soiled with this material before reuse. Studies indicate that the dry cleaning of work clothing contaminated with mineral oils is at least five times more effective in removing these oils than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling of contaminated clothing.

Note to Physician:

Inhalation exposure may result in respiratory tract injury, the delayed onset of pulmonary edema, and may predispose patient to secondary respiratory infection. Persons exposed to high concentrations should be hospitalized for observation. Contact a Poison Center for additional treatment information.

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Center for additional treatment information.

5. FIRE-FIGHTING MEASURES

Ignition Temperature - AIT (degrees C):

Not determined.

Flash Point (degrees C):

< 37.78

Recommended Fire Extinguishing Agents and Special Procedures:

Water may be ineffective on flames but should be used to cool fire-exposed containers and provide protection for persons attempting to stop the leak. Use water spray, dry chemical, foam or carbon dioxide to extinguish flames.

Unusual or Explosive Hazards:

Danger! Flammable materials may release vapors that travel long distances, ignite and flash back. Containers may explode in a fire. Do not expose to heat, sparks, flame, or other sources of ignition.

Vapor space in closed container can contain hydrogen sulfide (H₂S) in explosive concentrations. Hydrogen sulfide gas may be released when heated. Toxic vapors formed on burning.

Extinguishing Media Which Must Not be Used:

Not determined.

Special Protective Equipment for Firefighters:

Wear full protective clothing and positive pressure breathing apparatus.

FIRE:

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may be ineffective on flames. Use water spray to keep containers cool and protect personnel attempting to stop the leak.

6. ACCIDENTAL RELEASE MEASURES

Procedures in Case of Accidental Release, Breakage or Leakage:

Eliminate all ignition sources including internal combustion engines and power tools. Ventilate area. Barricade the immediate hazard area. Stay upwind and warn of possible downwind explosion hazard. Avoid breathing vapor. Avoid contact with skin, eyes, or clothing. Pressure demand air supplied respirators should always be worn when the airborne concentration of the contaminant or oxygen is unknown. Otherwise, wear respiratory protection and other personal protective equipment as appropriate for the potential exposure hazard. Contain spill if possible. Remove with inert absorbent. Prevent entry into sewers and waterways.

7. HANDLING AND STORAGE

Precautions to be Taken in

Handling:

Use spark-proof tools. Material may be at elevated temperatures and/or pressures. Exercise

care when opening bleeders and sampling ports.

Storage:

Ground and bond shipping container, transfer line, and receiving container. Keep away from heat, sparks, flame, and other sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

Skin Protection:

Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required.

Respiratory Protection:

When Hydrogen Sulfide (H₂S) concentrations are unknown or are equal to or greater than 10 ppm, (as in such activities as: loading, unloading, guaging, cleaning large spills or upon entry into tanks, vessels, or other confined spaces, and during rescue of individuals suspected to be overexposed to H₂S), use supplied-air (airline or self-contained breathing apparatus) respiratory protection (NIOSH/MSHA Approved). The respirators must be equipped with pressure-demand regulators and operated in the pressure-demand mode ONLY. If airline units are used, a 5-minute egress bottle MUST also be carried. GAS MASKS OR OTHER AIR-PURIFYING RESPIRATORS MUST NEVER BE USED FOR H₂S DUE TO POOR WARNING PROPERTIES OF THE GAS.

Ventilation:

Adequate to meet component occupational exposure limits (see Section 2).

Exposure Control for Total Product:

Potential carcinogen - Recommend coal tar pitch volatiles (benzene soluble fraction): OSHA PEL-TWA 0.2 mg/m³, ACGIH TLV-TWA 0.2 mg/m³ Hydrogen sulfide: OSHA PEL-TWA 10 ppm, STEL 15ppm. ACGIH TLV-TWA 10 ppm, STEL 15 ppm.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Color and physical form may vary with source
Odor:	Petroleum oil odor
Boiling Point (degrees C):	37.78 - 704.44
Melting/Freezing point (degrees C):	Not applicable.
Specific Gravity (water=1):	.9459
pH of undiluted product:	Not determined.
Vapor Pressure:	< 1380 mmHg
Viscosity (degrees C):	140.9 cSt
VOC Content:	Not determined.
Vapor Density (air=1):	Not determined.
Solubility in Water (%):	< 0.1
Other:	None

10. STABILITY AND REACTIVITY

This material reacts violently with:

Strong Oxidizers

Comments:

None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones. May evolve hydrogen sulfide, sulfur oxides and other sulfur containing compounds.

Hazardous Polymerizations:

No

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose

Oral:

LD50 Believed to be > 5.00 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 Believed to be > 2.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Believed to be > .50 - 3.00 /8.0 (rabbit) slightly irritating

Eyes:

(Draize) Believed to be > 15.00 - 25.00 /110 (rabbit) slightly irritating

Sensitization:

Not determined.

Other:

Prolonged and repeated exposure to benzene has caused anemia, lymphoma, and other cancers, in laboratory animals. Benzene has been shown to cause embryo/fetal toxicity and birth defects in laboratory animals, but only at doses which cause maternal toxicity (i.e., illness in the mother).

Petroleum oils which are unrefined or mildly refined, or which contain polynuclear aromatic hydrocarbons, have been shown to cause skin cancer when repeatedly applied to mouse skin without any effort to remove the material between applications.

Repeated inhalation exposure to high levels (750 ppm) of ethylbenzene produced an increase of kidney tumors in male and female rats, testicular tumors in male rats, lung tumors in male mice, and liver tumors in female mice. Based on these findings, the National Toxicological Program concluded that there was evidence of carcinogenic activity in laboratory animals. Although the significance of these findings to humans is unclear, workers should minimize exposure to ethylbenzene.

12. DISPOSAL CONSIDERATIONS

Waste Disposal Methods:

Dispose of this product in accordance with local and/or national regulations.

US/RCRA Waste Disposal Methods:

This product (as presently constituted) has the RCRA classification of benzene toxicity and ignitability. If discarded in its present form, it would have the hazardous waste numbers D018 and D001 respectively. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may change the classification to non-hazardous, or hazardous for reasons other than, or in addition to benzene toxicity and ignitability.

Remarks:

None

13. TRANSPORT INFORMATION

<u>DOT:</u>	Petroleum crude oil
<u>DOT:</u>	3
Identification Number:	UN 1267
Packing Group:	II
<u>Label Required:</u>	Flammable liquid
<u>RQ:</u>	This product contains a DOT Hazardous Substance or Substances, listed in Section 14 of the MSDS. The DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous(solid/liquid) N.O.S., Class 9, unless the product qualifies for the petroleum exemption (49 CFR 171.8), IF the product's shipping container holds at least (lbs) 6666
<u>IMDG:</u>	Not evaluated
<u>ICAO:</u>	Not evaluated
<u>TDG:</u>	Not evaluated

14. REGULATORY INFORMATION

Regulatory Information:

SARA 311 Hazard Categorization:

Acute
Chronic
Fire

Regulated Chemicals:

Xylenes

CAS 1330-20-7	% 0.10-0.99	RQ 100	TPQ
SARA 302/304 :	SARA 313 : X	CERCLA : X	

Toluene

CAS 108-88-3	% 0.10-0.99	RQ 1000	TPQ
SARA 302/304 :	SARA 313 : X	CERCLA : X	

Benzene

CAS 71-43-2	% 0.10-0.99	RQ 10	TPQ
SARA 302/304 :	SARA 313 : X	CERCLA : X	

Cumene

CAS 98-82-8	% 0.10-0.99	RQ 5000	TPQ
SARA 302/304 :	SARA 313 : X	CERCLA : X	

Cyclohexane

CAS 110-82-7	% 0.10-0.99	RQ 1000	TPQ
SARA 302/304 :	SARA 313 : X	CERCLA : X	

Ethylbenzene

CAS 100-41-4	% 0.10-0.99	RQ 1000	TPQ
SARA 302/304 :	SARA 313 : X	CERCLA : X	

Naphthalene

CAS 91-20-3	% 0.01-0.09	RQ 100	TPQ
SARA 302/304 :	SARA 313 : X	CERCLA : X	

Hydrogen sulfide

CAS 7783-06-4	% .001	RQ 100	TPQ 500
SARA 302/304 : X	SARA 313 :	CERCLA : X	

WHMIS:

Class B, Div 2: Flammable liquid
Class D, Div 2, Subdiv A: Carcinogenic

Regulatory Comments:

This product, or its components, are listed on or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

The Japanese Ministry of International Trade and Industry (MITI) inventory status of this product has not been determined.

This product, or its components, are listed on or are exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).

This product, or its components, are listed on or are exempt from the Canadian Domestic Substances List (DSL).

This product, or its components, are listed on or are exempt from the Australian Inventory of Chemical Substances (AICS).

This product may be subject to export notification under TSCA section 12(b); contains: cyclohexane

California Proposition 65: The following detectable components of this product are substances, or belong to classes of substances, known to the State of California to cause cancer and/or reproductive toxicity: Toluene (CAS 108-88-3), Benzene (CAS 71-43-2)

15. ENVIROMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not determined.

Remarks:

None

16. OTHER INFORMATION

Other Information:

Hazardous concentrations of hydrogen sulfide (H₂S) gas can accumulate in storage and rundown tanks, marine vessel compartments, sump pits or other confined spaces. When opening valves, hatches and dome covers, stand upwind, keep face as far from the opening as possible and avoid breathing any gases or vapors. When exposure concentrations are unknown and respiratory protection is not used, personal H₂S warning devices should be worn. These devices should not be relied on to warn of life threatening concentrations. H₂S fatigues the sense of smell rapidly. The rotten egg odor of H₂S disappears quickly, even though high concentrations are still present. The ACGIH TLV/TWA for H₂S is 10 ppm, the ACGIH STEL is 15 ppm.

Texaco recommends that all exposures to this product be minimized by strictly adhering to recommended occupational controls procedures to avoid any potential adverse health effects.

17. PRODUCT LABEL

MATERIAL IDENTITY

Product code and name:

94002 EOCENE CRUDE OIL

-

<u>Name</u>	<u>Cas nr</u>	<u>Range in %</u>
Petroleum-crude oil	8002-05-9	100
Sulfur	7704-34-9	3 - 9.99
Benzene	71-43-2	0.1 - 0.99
Ethylbenzene	100-41-4	0.1 - 0.99

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

WARNING STATEMENT

DANGER !

EXTREMELY FLAMMABLE LIQUID AND VAPOR VAPOR MAY CAUSE FLASH FIRE
MAY CAUSE DIZZINESS AND DROWSINESSCONTAINS OR MAY RELEASE HYDROGEN SULFIDE GAS (H₂S) H₂S GAS IS
HARMFUL OR FATAL IF INHALED H₂S GAS IS IRRITATING TO EYES AND
RESPIRATORY TRACT H₂S GAS MAY ACCUMULATE IN CONFINED SPACES
MAY CAUSE EYE IRRITATIONASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE
CONTAINS BENZENE - CANCER HAZARDCONTAINS POLYNUCLEAR AROMATIC HYDROCARBONS WHICH MAY CAUSE
CANCER BASED ON ANIMAL DATA

CONTAINS CRUDE OIL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA

CONTAINS ETHYLBENZENE WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA

PRECAUTIONARY MEASURES:

-Keep away from heat, sparks or flame.

-Use only with adequate ventilation.

-H₂S gas deadens sense of smell. Do not depend on odor to detect presence of gas.

-This gas deadens sense of smell. Do not depend on odor to detect presence of gas.

-Use supplied air respiratory protection for cleaning large spills or upon entry into tanks,
vessels, or other confined spaces.

-Avoid breathing vapor, mist, or gas.

-Avoid contact with eyes, skin, and clothing.

-Rescue procedures should be attempted ONLY after notifying others of emergency and
ONLY if appropriate personal equipment is available.

-Keep container closed.

-Wash thoroughly after handling.

HMIS

Health:

1

Flammability:

4

Reactivity:

0

Special:

-

NFPA

Health:

1

Flammability:

3

Reactivity

0

Special:

-

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin:

Wash skin with plenty of soap and water until all traces of material are removed. Remove and clean contaminated clothing (See Other Instructions). Destroy non-resistant footwear. Get medical attention if skin irritation persists or contact has been prolonged.

Ingestion:

If person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation:

If inhaled, remove to fresh air. If not breathing or in respiratory distress, clear person's airway and start artificial respiration. With a physician's advice, give supplemental oxygen using a bag-valve mask or manually triggered oxygen supply.

Note to Physician:

Inhalation exposure may result in respiratory tract injury, the delayed onset of pulmonary edema, and may predispose patient to secondary respiratory infection. Persons exposed to high concentrations should be hospitalized for observation. Contact a Poison Center for additional treatment information.

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Center for additional treatment information.

FIRE:

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may be ineffective on flames. Use water spray to keep containers cool and protect personnel attempting to stop the leak.

DOT:

Petroleum crude oil

3

Identification Number:

UN 1267

Packing Group:

II

Label Required:

Flammable liquid

RQ:

This product contains a DOT Hazardous Substance or Substances, listed in Section 14 of the MSDS. The DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous(solid/liquid) N.O.S., Class 9, unless the product qualifies for the petroleum exemption (49 CFR 171.8), IF the product's shipping container holds at least (lbs) 6666

Manufacturer's name and address:

TEXACO

P.O. Box 509

Beacon, NY 12508

Telephone numbers:

Transportation emergency:

(504) 680-1900

Health emergency-Company:(504) 680-1900

Product Code :

Date Issued : 22/07/1999

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF THE COMPANY'S PRODUCT STEWARDSHIP PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL THE COMPANY'S PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL THE COMPANY'S PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN. TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. THE COMPANY DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.