



Note – blue dot means no odor detected, orange dot indicates that crude oil odors were detected.



Material Safety Data Sheet

Title of Document:	Mississippi Canyon 252 On-Shore/Near Shore IH Monitoring Strategy MC 252 Well Incident	Document Number:	2200-T2-DO-PN-4003
Authority:	Safety Officer/Sr. Industrial Hygienist	Revision	0
Custodian/Owner:		Issue Date:	MM/DD/YYYY
Retention Code:	ADM3000	Next Review Date (if applicable):	MM/DD/YYYY
Security Classification:	Project Confidential	Page:	Page 22 of 44
Warning: Check DW Docs revision to ensure you are using the correct revision.			

1. Product and company identification

Product name Petroleum Crude Oil - Sweet

MSDS # 0000001688

Historic MSDS #: 03885

Product use Industrial

Code 0000001688

Supplier BP Energy Company

501 WestLake Park Boulevard

Houston, TX 77079

USA

EMERGENCY HEALTH

INFORMATION:

1 (800) 447-8735

Outside the US: +1 703-527-3887 (CHEMTREC)

EMERGENCY SPILL

INFORMATION:

1 (800) 424-9300 CHEMTREC (USA)

OTHER PRODUCT

INFORMATION

1 (866) 4 BP - MSDS

(866-427-6737 Toll Free - North America)

email: bpcares@bp.com

This material can contain hydrogen sulfide (H₂S), a very toxic and extremely flammable gas.

The amount of dissolved H₂S can vary considerably with the crude oil source.

2. Hazards identification

Physical state Liquid.

Color Brown. to Black.

Emergency overview DANGER !

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

MAY BE FATAL IF INHALED.

VAPOR MAY CONTAIN HYDROGEN SULFIDE (H₂S) GAS WHICH CAN BE HARMFUL OR

FATAL IF INHALED.

INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS.

CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

HARMFUL OR FATAL IF SWALLOWED

ASPIRATION HAZARD.

CAN ENTER LUNGS AND CAUSE DAMAGE.

DANGER ! CONTAINS BENZENE. CANCER HAZARD.

CAN CAUSE BLOOD DISORDERS.

HARMFUL IF ABSORBED THROUGH SKIN.

Contains a component that is a possible skin cancer hazard based on studies in laboratory animals.

Flammable liquid. Very toxic by inhalation. Harmful in contact with skin. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. Aspiration hazard if swallowed.

Can enter lungs and cause damage. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. If ingested, do not induce vomiting. Do not get in eyes or on skin or clothing. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

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Version 2 **Format** US-COMP **Language**
 0000001688
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Routes of entry Dermal contact. Eye contact. Inhalation. Ingestion.

Potential health effects

Eyes Causes eye irritation.

Skin Causes skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. Harmful if absorbed through the skin. Cancer hazard. Can cause cancer. . Can cause blood disorders. Contains a component that is a possible skin cancer hazard based on studies in laboratory animals. See toxicological information (section 11).

Inhalation May be fatal if inhaled. This material can contain hydrogen sulfide (H₂S), a very toxic and extremely flammable gas. Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness. Causes respiratory tract irritation. Cancer hazard. Can cause cancer. . Can cause blood disorders.

Ingestion Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs. Ingestion may cause gastrointestinal irritation and diarrhea.

See toxicological information (section 11)

3. Composition/information on ingredients

Ingredient name CAS # %

Crude Oil: complex hydrocarbon mixture comprising mainly of aliphatic, naphthenic and aromatic hydrocarbons.

8002-05-9 98 - 100

Contains:

Benzene 71-43-2 0 - 2

Hydrogen Sulfide 7783-06-4 < 0.1

Polycyclic aromatic hydrocarbons (PAHs) mixture < 0.1

4. First aid measures

Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin contact Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Clean shoes thoroughly before reuse. Wash contaminated clothing before reuse. Get medical attention.

Inhalation If inhaled, remove to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. Fire-fighting measures

Explosion limits Lower: 1.1%

Upper: 5.9%

(May vary with source of crude.)

Flammability of the product

Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

Unusual fire/explosion hazards

Flammable liquid.

In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground.

Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Fire/explosion hazards

Flash point Open cup: <4°C (<39.2°F) [Cleveland.]

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Extinguishing media

Suitable Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable Do not use water jet.

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Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Protective clothing (fire) Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

(SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighting procedures

Hazardous combustion

products

Combustion products may include the following:

carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)

Hydrogen Sulfide (H₂S)

sulfur oxides (SO₂, SO₃ etc.)

6. Accidental release measures

Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas.

Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Environmental

precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Small spill

Methods for cleaning up

Personal protection in

case of a large spill

Chemical splash goggles. Chemical-resistant protective suit. Boots. Chemical-resistant gloves.

Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product.

Suggested protective clothing might not be adequate. Consult a specialist before handling this product. CAUTION: The protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or if concentrations exceed the protection limits of air-purifying respirator.

7. Handling and storage

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Handling Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Storage Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Do not enter storage tanks without breathing apparatus unless the tank has been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapours concentrations of less than 1% of the lower flammability limit and an oxygen concentration of at least 20% volume.

Light hydrocarbon vapors can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapor in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling.

Other information

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and sampling from storage tanks. When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure. Use spark-proof tools and explosion-proof equipment.

This material can contain hydrogen sulphide (H₂S), an extremely toxic and flammable gas. Vapors containing hydrogen sulfide may accumulate during storage or transport and may also be vented during filling of tanks. Hydrogen sulfide has a typical "bad egg" smell but at high concentrations the sense of smell is rapidly lost, therefore do not rely on sense of smell for detecting hydrogen sulfide. Use specially designed measuring instruments for determining its concentration.

8. Exposure controls/personal protection

Occupational exposure limits

Crude Oil: complex hydrocarbon mixture comprising mainly of aliphatic, naphthenic and aromatic hydrocarbons.

ACGIH TLV (United States).

STEL: 10 mg/m³ 15 minute(s). Form: OIL MIST, MINERAL (Recommended)

TWA: 5 mg/m³ 8 hour(s). Form: OIL MIST, MINERAL (Recommended)

TWA: 100 ppm 8 hour(s). Form: Stoddard Solvent (Recommended)

TWA: 525 mg/m³ 8 hour(s). Form: Stoddard Solvent (Recommended)

OSHA PEL (United States).

TWA: 5 mg/m³ 8 hour(s). Form: OIL MIST, MINERAL (Recommended)

TWA: 2900 mg/m³ 8 hour(s). Form: Stoddard Solvent (Recommended)

TWA: 500 ppm 8 hour(s). Form: Stoddard Solvent (Recommended)

Benzene **ACGIH TLV (United States). Absorbed through skin.**

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STEL: 8 mg/m³ 15 minute(s). Issued/Revised: 5/1997

STEL: 2.5 ppm 15 minute(s). Issued/Revised: 5/1997

TWA: 1.6 mg/m³ 8 hour(s). Issued/Revised: 5/1997

TWA: 0.5 ppm 8 hour(s). Issued/Revised: 5/1997

NIOSH REL (United States).

STEL: 1 ppm 15 minute(s). Issued/Revised: 6/1994

TWA: 0.1 ppm 10 hour(s). Issued/Revised: 6/1994

OSHA PEL (United States).

STEL: 5 ppm 15 minute(s). Issued/Revised: 6/1993

TWA: 1 ppm 8 hour(s). Issued/Revised: 6/1993

OSHA PEL Z2 (United States).

AMP: 50 ppm 10 minute(s). Issued/Revised: 6/1993

CEIL: 25 ppm Issued/Revised: 6/1993

TWA: 10 ppm 8 hour(s). Issued/Revised: 6/1993

Hydrogen Sulfide **ACGIH TLV (United States).**

STEL: 21 mg/m³ 15 minute(s). Issued/Revised: 9/1994

STEL: 15 ppm 15 minute(s). Issued/Revised: 9/1994

TWA: 14 mg/m³ 8 hour(s). Issued/Revised: 9/1994

TWA: 10 ppm 8 hour(s). Issued/Revised: 9/1994

NIOSH REL (United States).

CEIL: 15 mg/m³ 10 minute(s). Issued/Revised: 6/1994

CEIL: 10 ppm 10 minute(s). Issued/Revised: 6/1994

OSHA PEL Z2 (United States).

AMP: 50 ppm 10 minute(s). Issued/Revised: 6/1993

CEIL: 20 ppm Issued/Revised: 6/1993

Polycyclic aromatic hydrocarbons (PAHs) **ACGIH TLV (United States).**

TWA: 0.2 mg/m³ 8 hour(s). Form: Benzene-soluble

OSHA PEL (United States).

TWA: 0.2 mg/m³ 8 hour(s). Form: Benzene-soluble

Ingredient name Occupational exposure limits

Some states may enforce more stringent exposure limits.

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Control Measures Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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Hygiene measures Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Personal protection

Eyes Avoid contact with eyes. Safety glasses with side shields or chemical goggles.

Skin and body Do not get on skin or clothing. Wear clothing and footwear that cannot be penetrated by chemicals or oil.

Respiratory Use adequate ventilation. Do not breathe vapor or mist. Approved air-supplied breathing

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apparatus must be worn where there is a risk of inhaling hydrogen sulfide gas. Personal gas monitors may also provide early warning of hydrogen sulfide. Air supplied respiratory protection should be worn whenever it is required for the worker's face to be within 3 feet of an open hatch.

Hands Recommended: Gloves made from Viton or comparable material resistant to hydrocarbons. Nitrile gloves. Butyl rubber gloves.

The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Consult your supervisor or S.O.P. for special handling instructions.

9. Physical and chemical properties

Physical state Liquid.

Color Brown. to Black.

Odor Petroleum Hydrocarbon, Rotten eggs.

Boiling point / Range -17.8 to 537.8°C (-0.04 to 1000°F)

Melting point / Range -60 to -20°C (-76 to -4°F)

Specific gravity 0.74 to 1.03

Explosion limits Lower: 1.1%

Upper: 5.9%

(May vary with source of crude.)

Viscosity SUS: 31 to 9000 SUS at 20°C

Flash point Open cup: <4°C (<39.2°F) [Cleveland.]

Vapor density >1 [Air = 1]

Vapor pressure

Solubility Insoluble in water.

>0.359 kPa (>2.7 mm Hg)

10. Stability and reactivity

The product is stable.

Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis. hydrogen fluoride

Decomposition products may include the following materials: carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide), sulfur oxides (SO₂, SO₃ etc.) Vapor may contain hydrogen sulfide (H₂S) gas which can be harmful or fatal if inhaled.

Keep away from heat, sparks and flame. Avoid all possible sources of ignition (spark or flame).

Stability and reactivity

Conditions to avoid

Incompatibility with

various substances

Hazardous decomposition

products

Hazardous polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

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11. Toxicological information

Acute toxicity

Classification

Benzene 1 Proven. +

Polycyclic aromatic hydrocarbons (PAHs) - Possible -

Product/ingredient name IARC NTP OSHA

To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

Crude oil is a naturally occurring complex mixture of hydrocarbons whose exact composition and physical properties can vary widely depending upon its source.

From skin-painting studies in laboratory animals, it has been concluded that most, if not all, petroleum crudes, regardless of source, possess carcinogenic activity to some degree. This means that workers who practice poor personal hygiene and who are repeatedly exposed by direct skin contact to crude oil over many years may potentially be at risk of developing skin cancer. However, intermittent or occasional skin contact with petroleum crude oils is not expected to have serious health effects as long as good personal hygiene measures such as those outlined in this material safety data sheet are followed. Crude oil has not been identified as a carcinogen by NTP, IARC or OSHA.

Exposure to sunlight may increase the degree of skin irritation.

Crude oil administered orally or dermally to pregnant rats during gestation produced increased numbers of resorptions and decreases in fetal weight. Repeated exposures to some crude oils in rats have produced effects on the blood, liver and thymus.

Benzene: Acute toxicity of benzene results primarily from depression of the central nervous system (CNS). Inhalation of concentrations over 50 ppm can produce headache, lassitude, weariness, dizziness, drowsiness, or excitation. Exposure to very high levels can result in unconsciousness and death.

Benzene: Long-term overexposure to benzene has been associated with certain types of leukemia in humans. In addition, the International Agency for Research on Cancer (IARC), the National Toxicology Program, and OSHA consider benzene to be a human carcinogen. Chronic exposures to high levels of benzene have been reported to cause adverse blood effects including anemia.

Benzene exposure can occur by inhalation and absorption through the skin.

Inhalation and forced feeding studies of benzene in laboratory animals have produced a carcinogenic response in a variety of organs, including possibly leukemia, other adverse effects on the blood, chromosomal changes and some effects on the immune system. Exposure to benzene at levels up to 300 ppm did not produce birth defects in animal studies; however, exposure to higher dosage levels resulted in a reduction of body weight of the rat pups (fetotoxicity). Changes in the testes have been observed in mice exposed to benzene at 300 ppm, but reproductive performance was not altered in rats exposed to benzene at the same level. Aspiration of this material into the lungs can cause chemical pneumonia and can be fatal. Aspiration into the lungs can occur while vomiting after ingestion of this material.

Hydrogen sulfide (H₂S) gas may accumulate in storage tanks of bulk transport compartments containing this material. Contact with eyes causes painful conjunctivitis, sensitivity to light, tearing and clouding of vision. Inhalation of low concentrations causes a runny nose with a loss of sense of smell, labored breathing and shortness of breath. Direct contact with skin causes pain and redness. Other symptoms of exposure include profuse salivation, nausea, vomiting, diarrhea, giddiness, headache, dizziness, confusion, rapid breathing, rapid heart rate, sweating, weakness, sudden collapse, unconsciousness and death due to respiratory paralysis.

Other information

IARC :

1 - Carcinogenic to human.

NTP :

Proven - Known to be human carcinogens.

Possible - Reasonably anticipated to be human carcinogens.

OSHA :

+ Potential occupational carcinogen

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Potential chronic health effects

Carcinogenicity Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

Cardiac neurological effects have also been reported. Prolonged breathing (greater than one hour) of concentrations of H₂S around 50 ppm can produce eye and respiratory tract irritation. Levels of 250 to 600 ppm will result in fluid in the lungs, and concentrations around 1,000 ppm will cause unconsciousness and death in a short period of time. Since the sense of smell rapidly becomes insensitive to this toxic, colorless gas, odor cannot be relied upon as an indicator of concentrations of the gas. Always exercise caution when working around closed containers.

12. Ecological information

No testing has been performed by the manufacturer.

13. Disposal considerations

Waste information The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

NOTE: The generator of waste has the responsibility for proper waste identification (based on characteristic(s) or listing), transportation and disposal

14.

International transport regulations

Transport information

DOT

Classification

IMDG

Classification

Regulatory information

UN

number

Proper shipping name Class Packing group Additional information

TDG

Classification

IATA/ICAO

Classification

UN1267

UN1267

UN1267 PETROLEUM CRUDE OIL

(Hydrogen Sulfide)

PETROLEUM CRUDE OIL

(Hydrogen Sulfide)

PETROLEUM CRUDE OIL

(Hydrogen Sulfide)

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3

3 II

II

II Reportable quantity

10 lbs. (4.54 kg)

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UN1267 PETROLEUM CRUDE OIL

(Hydrogen Sulfide)

3 II -

15. Regulatory information

All components are listed or exempted.

U.S. Federal Regulations

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Crude Oil: complex hydrocarbon mixture comprising mainly of aliphatic, naphthenic and aromatic hydrocarbons. ; Benzene

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Petroleum Crude Oil - Sweet: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

United States inventory

(TSCA 8b)

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State regulations

Benzene 71-43-2 0 - 2

Polycyclic aromatic hydrocarbons (PAHs) 0 - 0.1

Benzene 71-43-2 0 - 2

Polycyclic aromatic hydrocarbons (PAHs) 0 - 0.1

SARA 313

Form R - Reporting

requirements

Supplier notification

Product name CAS number Concentration

CERCLA: Hazardous substances.: Benzene: 10 lbs. (4.54 kg); Hydrogen Sulfide: 100 lbs. (45.4 kg); Polycyclic aromatic hydrocarbons (PAHs): 1 lb. (0.454 kg);

CERCLA Sections

102a/103 Hazardous

Substances (40 CFR

Part 302.4):

Massachusetts

Substances

The following components are listed: PETROLEUM CRUDE; BENZENE

New Jersey Hazardous

Substances

The following components are listed: MOTOR FUEL, n.o.s.; BENZENE; Polycyclic aromatic hydrocarbons (PAHs)

Pennsylvania RTK

Hazardous Substances

The following components are listed: PETROLEUM; BENZENE; Polycyclic aromatic hydrocarbons (PAHs)

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WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Benzene

California Prop. 65

All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

Not determined.

Not determined.

Not determined.

Not determined.

Canada inventory

Europe inventory

China inventory (IECSC)

Japan inventory (ENCS)

Korea inventory (KECI)

Philippines inventory

(PICCS)

Australia inventory (AICS)

Inventories

16. Other information

Label requirements DANGER !

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

MAY BE FATAL IF INHALED.

VAPOR MAY CONTAIN HYDROGEN SULFIDE (H₂S) GAS WHICH CAN BE HARMFUL OR FATAL IF INHALED.

INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS.

CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

HARMFUL OR FATAL IF SWALLOWED

ASPIRATION HAZARD.

CAN ENTER LUNGS AND CAUSE DAMAGE.

DANGER ! CONTAINS BENZENE. CANCER HAZARD.

CAN CAUSE BLOOD DISORDERS.

HARMFUL IF ABSORBED THROUGH SKIN.

Contains a component that is a possible skin cancer hazard based on studies in laboratory animals.

Date of issue 02/06/2009.

Petroleum Crude Oil - Sweet **Page: 8/9**

ENGLISH.

(ENGLISH)

Product name Product code

Version 2 Format US-COMP Language

0000001688

(US-COMP)

National Fire

Protection

Association (U.S.A.) Health 0

3

2

Fire hazard

Instability

Specific hazard

History

Date of issue

Date of previous issue

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Prepared by Product Stewardship

Notice to reader

NOTICE : This Material Safety Data Sheet is based upon data considered to be accurate at the time of its preparation.

Despite our

efforts, it may not be up to date or applicable to the circumstances of any particular case. We are not responsible for any damage or

injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the

product.

HMIS® Rating :

Physical

Hazard

Flammability

Health * 2

3

0

Personal X

protection

02/06/2009.

02/02/2009.

Date of issue 02/06/2009.

Petroleum

Material Safety Data Sheet

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1. Product and company identification

Product name Mississippi Canyon 252 Weathered Crude Oil (Louisiana Light Sweet Crude)

MSDS # 0000003277

Product use Oil spill recovery / cleanup.

Synonyms Crude Oil, Louisiana Sweet Crude Oil

Code 0000003277

The primary exposure hazard of weathered crude is by physical contact with the skin.

Supplier BP America Production Company

501 WestLake Park Boulevard

Houston TX 77079

EMERGENCY HEALTH

INFORMATION:

1 (800) 447-8735

Outside the US: +1 703-527-3887 (CHEMTREC)

EMERGENCY SPILL

INFORMATION:

1 (800) 424-9300 CHEMTREC (USA)

OTHER PRODUCT

INFORMATION

1 (866) 4 BP - MSDS

(866-427-6737 Toll Free - North America)

email: bpcares@bp.com

2. Hazards identification

Physical state

Color Various colors: Brown to Black. Reddish brown, and orange.

Emergency overview WARNING !

CAUSES EYE AND SKIN IRRITATION.

Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. May be combustible at high temperature. Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Use adequate ventilation. Do not ingest. If ingested, do not induce vomiting. Wash thoroughly after handling.

Routes of entry Skin contact. Eye contact. Inhalation. Ingestion.

Potential health effects

Eyes Causes eye irritation.

Skin Causes skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. See toxicological information (section 11).

Inhalation Potential for toxic vapor exposures is very low: with the loss of the highly volatile components, weathered oil does not present an inhalation hazard.

Ingestion Causes gastrointestinal irritation and diarrhea.

See toxicological information (section 11)

Liquid./ Semi-solid

Date of issue 05/18/2010.

Mississippi Canyon 252 Weathered Crude Oil (Louisiana **Page: 1/7**

Light Sweet Crude)

ENGLISH.

(ENGLISH)

Product name Product code

Version 1 Format US-COMP Language

0000003277

(US-COMP)

3. Composition/information on ingredients

Ingredient name CAS # %

Crude oil 8002-05-9 98 - 100

Contains:

Naphthalene 91-20-3 <0.1

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Low molecular weight, highly volatile components are not present.

Hydrogen sulfide and sulfur dioxide have not been detected in air sampled above sources of this weathered oil.

A complex mixture of hydrocarbons consisting predominantly of paraffins, cyclic paraffins, and aromatic hydrocarbons having carbon numbers of C10 or greater.

4. First aid measures

Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin contact Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting.

Never give anything by mouth to an unconscious person. Get medical attention.

5. Fire-fighting measures

Flammability of the product

Unusual fire/explosion hazards None identified.

May be combustible at high temperature.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Protective clothing (fire) Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

(SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighting procedures

Hazardous combustion products

Combustion products may include the following:

carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)

sulfur oxides (SO₂, SO₃ etc.)

nitrogen oxides (NO, NO₂ etc.)

Fire/explosion hazards May be combustible at high temperature.

Flash point Closed cup: >93°C (>199.4°F) ESTIMATED.

Extinguishing media

Suitable Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable Do not use water jet.

6. Accidental release measures

Environmental precautions

Avoid material runoff and contact with soil, waterways, drains and sewers.

Contact Gulf of Mexico Response:

Environmental hotline and to report oiled shoreline: +1 866.448.5816

Methods for cleaning up

Personal protection in case of a large spill

Safety glasses with side shields or chemical goggles. Tyvek protective suit.. Rubber boots. Gloves (nitrile or polyethylene). Suggested protective clothing might not be adequate. Consult a specialist before handling this product.

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Mississippi Canyon 252 Weathered Crude Oil (Louisiana **Page: 2/7**

Light Sweet Crude)

ENGLISH.

(ENGLISH)

Product name Product code

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Contact Gulf of Mexico Response:

Environmental hotline and to report oiled shoreline: +1 866.448.5816

Large spill

Contact Gulf of Mexico Response:

Environmental hotline and to report oiled shoreline: +1 866.448.5816

Small spill**7. Handling and storage**

Handling Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking. Avoid contact with eyes, skin and clothing. Do not ingest. Use with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source.

Storage Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection**Occupational exposure limits**

Weathered Crude Oil None established.

Other Applicable Exposure limit values:

Mineral oil **NIOSH REL (United States).**CEIL: 1800 mg/m³ 15 minute(s). Form: All formsTWA: 350 mg/m³ 10 hour(s). Form: All forms**ACGIH TLV (United States).**STEL: 10 mg/m³ 15 minute(s). Form: OIL MIST, MINERALTWA: 5 mg/m³ 8 hour(s). Form: OIL MIST, MINERAL**OSHA PEL (United States).**TWA: 5 mg/m³ 8 hour(s). Form: OIL MIST, MINERAL**Ingredient name Occupational exposure limits****Some states may enforce more stringent exposure limits.**

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Control Measures Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

Hygiene measures Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Personal protection

Eyes Avoid contact with eyes. Safety glasses with side shields or chemical goggles.

Skin and body Avoid contact with skin and clothing. Wear Tyvek protective suit.

Respiratory Use adequate ventilation. If ventilation is inadequate, use a NIOSH certified P95 particulate respirator.

Hands Wear protective gloves. (Nitrile or polyethylene)

Consult your supervisor or S.O.P. for special handling instructions.

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Mississippi Canyon 252 Weathered Crude Oil (Louisiana **Page: 3/7**)

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Light Sweet Crude)

ENGLISH.

(ENGLISH)

Product name Product code

Version 1 Format US-COMP Language

0000003277

(US-COMP)

9. Physical and chemical properties

Physical state Liquid./ Semi-solid

Color Various colors: Brown to Black. Reddish brown, and orange.

Odor Petroleum Hydrocarbon [Slight]

Specific gravity <1 [Water = 1]

Flash point Closed cup: >93°C (>199.4°F) ESTIMATED.

Solubility insoluble in water.

10. Stability and reactivity

The product is stable.

Reactive or incompatible with the following materials: oxidizing materials.

carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)

sulfur oxides (SO₂, SO₃ etc.)

nitrogen oxides (NO, NO₂ etc.)

Avoid all possible sources of ignition (spark or flame). Avoid excessive heat.

Stability and reactivity

Conditions to avoid

Incompatibility with

various substances

Hazardous decomposition

products

Hazardous polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Classification

Crude oil 3 - -

Product/ingredient name IARC NTP OSHA

Potential chronic health effects

Carcinogenicity No known significant effects or critical hazards.

Medical conditions

aggravated by overexposure

Individuals with preexisting disease of the skin may be at increased risk from exposure to this chemical.

Crude oil is a naturally occurring complex mixture of hydrocarbons whose exact composition and physical properties can vary widely depending upon its source. Weathered crude oil is different from complete crude oil due to the loss of low molecular weight, highly volatile components.

Specific toxicity tests have not been conducted on this material. Our hazard evaluation is based on information from similar materials, the ingredients, technical literature, and/or professional experience.

Exposure to sunlight may increase the degree of skin irritation.

Crude oil administered orally or dermally to pregnant rats during gestation produced increased numbers of resorptions and decreases in fetal weight. Repeated exposures to some crude oils in rats have produced effects on the blood, liver and thymus.

From skin-painting studies in laboratory animals, it has been concluded that most, if not all, petroleum crudes, regardless of source, possess carcinogenic activity to some degree. This means that workers who practice poor personal hygiene and who are repeatedly exposed by direct skin contact to crude oil over many years may potentially be at risk of developing skin cancer.

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However, intermittent or occasional skin contact with petroleum crude oils is not expected to have serious health effects as long as good personal hygiene measures such as those outlined in this material safety data sheet are followed. Crude oil has not been identified as a carcinogen by NTP, IARC or OSHA.

Other information

IARC :

3 - Not classifiable as a human carcinogen.

Date of issue 05/18/2010.

Mississippi Canyon 252 Weathered Crude Oil (Louisiana **Page: 4/7**

Light Sweet Crude)

ENGLISH.

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Product name Product code

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12. Ecological information

Ecotoxicity

No testing has been performed by the manufacturer.

13. Disposal considerations

Waste information The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid material runoff and contact with soil, waterways, drains and sewers.

NOTE: The generator of waste has the responsibility for proper waste identification (based on characteristic(s) or listing),

transportation and disposal

14.

International transport regulations

Transport information

DOT

Classification

IMDG

Classification

Regulatory

information

UN

number

Proper shipping name Class Packing group Additional information

TDG

Classification

IATA/ICAO

Classification

---- Proper classification to be determined at the time of shipment

Proper classification to be determined at the time of shipment

Proper classification to be

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determined at the time of shipment

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- -

-

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---- Proper classification to be determined at the time of shipment

15. Regulatory information

All components are listed or exempted.

U.S. Federal Regulations

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Mississippi Canyon 252 Weathered Crude Oil (Louisiana Light Sweet Crude): Immediate (acute) health hazard, Delayed (chronic) health hazard
TSCA 12(b) one-time export: Naphthalene

This product does not contain any hazardous ingredients at or above regulated thresholds.

This product does not contain any hazardous ingredients at or above regulated thresholds.

SARA 313

Form R - Reporting requirements

Supplier notification

United States inventory

(TSCA 8b)

Date of issue 05/18/2010.

Mississippi Canyon 252 Weathered Crude Oil (Louisiana **Page: 5/7**

Light Sweet Crude)

ENGLISH.

(ENGLISH)

Product name Product code

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State regulations

CERCLA Sections CERCLA: Hazardous substances.: Naphthalene: 100 lbs. (45.4 kg);

102a/103 Hazardous

Substances (40 CFR

Part 302.4):

Massachusetts

Substances

The following components are listed: PETROLEUM CRUDE

New Jersey Hazardous

Substances

The following components are listed: PETROLEUM DISTILLATES; CRUDE OIL (PETROLEUM)

Pennsylvania RTK

Hazardous Substances

The following components are listed: PETROLEUM

WARNING: This product contains a chemical known to the State of California to cause cancer.

Naphthalene

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California Prop. 65

All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

Not determined.

All components are listed or exempted.

All components are listed or exempted.

Canada inventory**Europe inventory****China inventory (IECSC)****Japan inventory (ENCS)****Korea inventory (KECI)****Philippines inventory****(PICCS)****Australia inventory (AICS)****Inventories****16. Other information****Label requirements** WARNING !

CAUSES EYE AND SKIN IRRITATION.

National Fire**Protection****Association (U.S.A.) Health 0****2****2****Fire hazard****Instability****Specific hazard****History****Date of previous issue****Prepared by** Product Stewardship**Notice to reader**

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information

contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. Additionally this data and advice apply to weathered crude oil that is recovered from the environment for potential reuse or recycling. You should not use the

product other than for these stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this material safely and to comply with all applicable laws and regulations. The BP

Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from

any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for

supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the

product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of

any hazards described in this sheet and of any precautions that should be taken.

HMIS® Rating :**Physical****Hazard****Flammability****Health * 2****2**

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**Personal X
protection**

05/18/2010.

No previous validation.

Date of issue**Date of issue** 05/18/2010.Mississippi Canyon 252 Weathered Crude Oil (Louisiana **Page: 6/7**

Light Sweet Crude)

ENGLISH.**(ENGLISH)****Product name Product code****Version 1 Format US-COMP Language**

0000003277

(US-COMP)**Date of issue** 05/18/2010.Mississippi Canyon 252 Weathered Crude Oil (Louisiana **Page: 7/7**

Light Sweet Crude)

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Public Health Information - FAQs

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MC-252 Crude Oil Spill

Updated: May 13, 2010

What are crude oils?

Crude oils are a naturally occurring complex combination of predominantly carbon-containing chemicals referred to as “hydrocarbons”. Crude oils also contain sulfur, oxygen and nitrogen compounds, metals, and dissolved gases such as hydrogen sulfide.

Crude oils range from thin, light colored oils consisting mainly of gasoline-quality materials to heavy, thick tar-like materials. The type of crude oil released in the Deep Horizon incident is described as “light sweet crude.” The term “light” indicates that it contains high amounts of the chemical compounds needed to produce gasoline, kerosene, and diesel. The term “sweet” indicates that the crude oil has a low sulfur content.

What happens to crude oil when it is released in the environment?

When crude oil is released in the environment, its composition changes as a result of “weathering.” Evaporation is one of the more significant weathering processes. Evaporation occurs mainly during the first 24-48 hours after release and it greatly reduces the amount of the lighter components of crude oil. Some crude oils may lose up to 40% of their volume due to evaporation in the first few days after a release. Thus, the composition of any released material remaining in the affected area is likely to be substantially different from the originally-released crude oil.

Analysis has so far shown that the weathered crude from the MC252 incident does not contain concentrations in excess of 0.1% of any of the chemicals of most concern to public health, for example: benzene, toluene, ethylbenzene, and xylenes.

What are the potential health effects caused by exposure to crude oil?

Some substances from crude oil evaporate into the air. Persons may breathe these substances from fresh crude oil, but as noted above weathered crude oil has already lost its volatile components to a level which is well below that which may cause any adverse health effects.

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Crude oil has been noted to have a low order of oral and dermal toxicity. Prolonged skin contact with most petroleum products including crude oil may cause skin irritation. In the case of individuals working directly with crude oil, the irritation may sometimes be related more to the solvents that are used to remove the crude oil from skin rather than the crude oil itself.

The International Agency for Research on Cancer (IARC) has concluded there was inadequate evidence for the carcinogenicity of crude oil in humans and limited evidence for carcinogenicity in experimental animals.

I smelled the released crude oil — is this a health concern?

Weathered crude oil contains some sulfur compounds that can be smelled at levels far below levels of concern. Since April 26, 2010, the Unified Command and US EPA have been conducting air monitoring tests in the coastal areas potentially impacted by the incident. The levels measured to date would not lead to adverse health effects.

What can I do to protect myself from exposure to crude oil?

The best way to protect yourself from exposure to crude oil is to avoid direct contact with the oil. Response workers that must go near the oil will wear oil-resistant gloves. Latex gloves should not be used since they may be dissolved by the oil. Instead, use nitrile or polyethylene gloves. Keep your arms and legs covered to avoid skin contact with the oil. Wear old clothing or disposable protective clothing that can be left at the site of oil contamination if you must. If you do get crude oil on your skin then it should be washed off using soap and water, or waterless hand cleaners (such as those found at auto parts stores).

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Public Health Information - FAQs

MC-252 Crude Oil Spill

Updated: May 13, 2010

Are there any risks to health associated with the dispersants being used?

All dispersants used in the US must be on the NCP Product Schedule as required by Subpart J of the National Oil and Hazardous Substances Pollution Contingency Plan.

Two dispersants manufactured by Nalco have been used in this incident to break down crude oil. The dispersants are Corexit EC9527A and Corexit EC9500. Information from the manufacturer's material safety data sheets indicate that the two dispersants have a relatively low toxicity to humans. One component of Corexit EC 9527A is 2-butoxyethanol which is associated with a risk of skin, eye and respiratory irritation. However the actual level present in the dispersant, coupled with the further dilution associated with its use, mean that the risk of adverse effects occurring is low. These dispersants are in wide-spread use around the World and all the precautions, as specified in the Material Safety Data Sheets, are in place to minimize exposure of personnel to dispersants during spraying and oil recovery operations. The nature of these operations mean there should be no risk to the General Public, however anybody working adjacent to spraying operations may need to adopt the same precautions recommended in the material safety data sheets, e.g. chemical eye protection.

If you have concerns about your health in relation to potential exposure to either crude oil or dispersants, then seek advice from your personal Physician.

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