

Petroleum Crude Oil (Sweet)

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : Petroleum Crude Oil (Sweet)
Product form : Mixture
Product names : Bayou Choctaw Sweet, Big Hill Sweet, Bryan Mound Sweet, West Hackberry Sweet

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

U.S. Department of Energy
Strategic Petroleum Reserve
900 E. Commerce Road
New Orleans, LA 70123

1.4. Emergency telephone number

Emergency number : (504) 734-4380

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 1 H224
Muta. 1B H340
Carc. 1A H350
Repr. 2 H361
STOT SE 3 H336
Asp. Tox. 1 H304
Aquatic Acute 2 H401
Aquatic Chronic 2 H411

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02

GHS07

GHS08

GHS09

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H224 - Extremely flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H336 - May cause drowsiness or dizziness
H340 - May cause genetic defects
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof ventilating, lighting, electrical equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P261 - Avoid breathing fume, gas, mist, vapours
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear eye protection, protective clothing, protective gloves
P301+P310 - IF SWALLOWED: Immediately call a doctor, a poison center
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention
P312 - Call a doctor, a poison center if you feel unwell
P331 - Do NOT induce vomiting
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder to extinguish

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P391 - Collect spillage
P403+P233+P235 - Store in a well-ventilated place. Keep container tightly closed. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

Other hazards not contributing to the classification : Crude oil may contain or release hydrogen sulfide (H₂S) gas. Hydrogen sulfide is a chemical which can be poisonous and flammable at higher concentrations.

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Petroleum distillates (naphtha)	(CAS No) 8002-05-9	60 - 100*
Butane	(CAS No) 106-97-8	30 - 60*
Propane	(CAS No) 74-98-6	10 - 30*
Isobutane	(CAS No) 75-28-5	10 - 30*
Isopentene	(CAS No) 78-78-4	7 - 13*
Pentane	(CAS No) 109-66-0	5 - 10*
Naphthalene	(CAS No) 91-20-3	5 - 10*
Ethane	(CAS No) 74-84-0	0.3 - 1*
Sulfur	(CAS No) 7704-34-9	0.1 - 0.5*
Neopentane	(CAS No) 463-82-1	0.5 - 1.5*
Benzene	(CAS No) 71-43-2	0.1 - 1*
Toluene	(CAS No) 108-88-3	0.1 - 1*
Ethylbenzene	(CAS No) 100-41-4	0.1 - 1*
m-Xylene	(CAS No) 108-38-3	0.1 - 1*
p-Xylene	(CAS No) 106-42-3	0.1 - 1*
o-Xylene	(CAS No) 95-47-6	0.1 - 1*
Hydrogen sulfide	(CAS No) 7783-06-4	0 - 0.1*

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. May cause cancer. May cause genetic defects. Suspected of damaging fertility. Suspected of damaging the unborn child.

Symptoms/injuries after inhalation : May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

Chronic symptoms : May cause genetic defects. May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed

At high concentrations hydrogen sulfide may produce pulmonary edema, respiratory depression, and/or respiratory paralysis. The first priority in treatment should be the establishment of adequate ventilation and the administration of 100% oxygen. Benzene is very hazardous in case of eye contact (irritant) or inhalation. Hazardous in case of skin contact (irritant, permeator) or ingestion. Inflammation of the eye is characterized by redness, watering, and itching.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Foam. Dry powder.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Hazardous combustion/decomposition products, including hydrogen sulfide, may be released by this material when exposed to heat or fire. Use caution and wear protective clothing, including respiratory protection.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Vapours may travel long distances along ground before igniting/flashing back to vapour source

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8). Avoid breathing fumes or vapors. May contain poisonous hydrogen sulfide gas. If the presence of dangerous amounts of hydrogen sulfide around the spilled product is suspected, additional or special actions may be warranted, including access restrictions and use of protective equipment. Benzene vapors + chlorine and light causes explosion. Reacts explosively with bromine pentafluoride, chlorine, chlorine trifluoride, diborane, nitric acid, nitryl perchlorate, liquid oxygen, ozone, silver perchlorate. Benzene + pentafluoride and methoxide (from arsenic pentafluoride and potassium methoxide) in trichlorotrifluoroethane causes explosion. Interaction of nitryl perchlorate with benzene gave a slight explosion and flash. The solution of permanganic acid (or its explosive anhydride, dimanganese heptoxide) produced by interaction of permanganates and sulfuric acid will explode on contact with benzene. Peroxodisulfuric acid is a very powerful oxidant. Uncontrolled contact with benzene may cause explosion. Mixtures of peroxomonsulfuric acid with benzene explodes.

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Sweep or shovel spills into appropriate container for disposal.

Methods for cleaning up : Product may create slip hazard . Soak up spills with materials designed to absorb petroleum products as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety procedures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe vapors.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Check atmosphere for oxygen content, hydrogen sulfide, and flammability prior to entry. Empty container may contain product residue which may exhibit hazards of product. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition.

Storage conditions : Store in dry, well-ventilated area. Keep container closed when not in use.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Petroleum distillates (naphtha) (8002-05-9)	
OSHA PEL (TWA) (ppm)	400 (vacated)
Ethane (74-84-0)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Propane (74-98-6)	
Remark (ACGIH)	OELs not established
OSHA PEL (TWA) (ppm)	1000
Isobutane (75-28-5)	
ACGIH STEL (ppm)	1000
Remark (OSHA)	OELs not established
Butane (106-97-8)	
ACGIH STEL (ppm)	1000
OSHA PEL (TWA) (ppm)	800
Neopentane (463-82-1)	
ACGIH TWA (ppm)	1000 (listed under Pentane, all isomers)
Remark (OSHA)	OELs not established
Isopentene (78-78-4)	
ACGIH TWA (ppm)	1000 (listed under Pentane, all isomers)
Remark (OSHA)	OELs not established
Pentane (109-66-0)	
ACGIH TWA (ppm)	1000 (listed under Pentane, all isomers)
OSHA PEL (TWA) (ppm)	1000
Benzene (71-43-2)	
ACGIH TWA (ppm)	0.5
ACGIH STEL (ppm)	2.5
OSHA PEL (TWA) (ppm)	1
OSHA PEL (STEL) (ppm)	5 (see 29 CFR 1910.1028)
OSHA PEL (Ceiling) (ppm)	25
Toluene (108-88-3)	
ACGIH TWA (ppm)	20
OSHA PEL (TWA) (ppm)	200
OSHA PEL (Ceiling) (ppm)	300 ppm (500 ppm Peak [10 minutes])
Ethylbenzene (100-41-4)	
ACGIH TWA (ppm)	20
OSHA PEL (TWA) (ppm)	100
OSHA PEL (STEL) (ppm)	125
m-Xylene (108-38-3)	
ACGIH TWA (ppm)	100
ACGIH STEL (ppm)	150
OSHA PEL (TWA) (ppm)	100
p-Xylene (106-42-3)	
ACGIH TWA (ppm)	100
ACGIH STEL (ppm)	150
OSHA PEL (TWA) (ppm)	100
o-Xylene (95-47-6)	
ACGIH TWA (ppm)	100
ACGIH STEL (ppm)	150
OSHA PEL (TWA) (ppm)	100

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Hydrogen sulfide (7783-06-4)	
ACGIH TWA (ppm)	1
ACGIH STEL (ppm)	5
OSHA Ceiling (ppm)	20
Naphthalene (91-20-3)	
ACGIH TWA (ppm)	10
ACGIH STEL (ppm)	15
OSHA PEL (TWA) (ppm)	10

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection : Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Use NIOSH certified respirators approved for the atmosphere of concern. Comply with the OSHA respiratory protection standard (29 CFR 1910.134) for identifying the proper use and selection of respiratory protection. A written respiratory protection program can be utilized to identify procedures for proper respirator use, respirator selection, fit testing, training, respirator maintenance, and medical evaluations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Black.
Odor	: Petroleum asphalt odor. Hydrogen sulfide (H ₂ S) has a characteristic rotten egg odor with an odor threshold as low as 10 parts per billion. However, odor should not be used as a warning because hydrogen sulfide can impact the sense of smell. Hydrogen sulfide concentrations can be measured with a hydrogen sulfide meter or colorimetric indicating tubes.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: Variable
Melting point/Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 4.5 – 6.0 RVP, PSI @ 100° F (variable)
Relative vapour density at 20 °C	: No data available
Relative density	: 0.84 – 0.85 (variable)
Solubility	: Insoluble to slightly soluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 5 – 8 cSt @ 77° F
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

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Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid contact with : Incompatible materials.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Hydrogen sulfide and oxides of nitrogen and sulfur may also be formed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Petroleum distillates (naphtha) (8002-05-9)	
LD50 dermal rabbit	> 2000 mg/kg
Ethane (74-84-0)	
LC50 inhalation rat (mg/l)	658 mg/l/4h
Propane (74-98-6)	
LC50 inhalation rat (mg/l)	658 mg/l/4h
Isobutane (75-28-5)	
LC50 inhalation rat (mg/l)	658 mg/l/4h
Butane (106-97-8)	
LC50 inhalation rat (mg/l)	658 g/m ³ 4 h
Isopentene (78-78-4)	
LC50 inhalation rat (mg/l)	280000 mg/m ³ 4 h
Pentane (109-66-0)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	3000 mg/kg
LC50 inhalation rat (mg/l)	364 g/m ³ 4 h
Benzene (71-43-2)	
LD50 dermal rabbit	> 8200 mg/kg
LC50 inhalation rat (mg/l)	44.66 mg/l/4h (vapor)
Toluene (108-88-3)	
LD50 oral rat	2600 mg/kg
LD50 dermal rabbit	12000 mg/kg
LC50 inhalation rat (mg/l)	12.5 mg/l/4h
Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15400 mg/kg
LC50 inhalation rat (mg/l)	17.2 mg/l/4h
m-Xylene (108-38-3)	
LD50 oral rat	5000 mg/kg
p-Xylene (106-42-3)	
LD50 oral rat	4029 mg/kg
LC50 inhalation rat (ppm)	4740 ppm/4h vapor

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o-Xylene (95-47-6)	
LD50 oral rat	3608 mg/kg
LD50 dermal rat	14100 mg/kg
LC50 inhalation rat (ppm)	4330 ppm 6 h (vapor)
Naphthalene (91-20-3)	
LD50 oral rat	1110 mg/kg
LC50 inhalation rat (mg/l)	> 340 mg/m ³ 1 h
Hydrogen sulfide (7783-06-4)	
LC50 inhalation rat (ppm)	700 mg/m ³ /4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer.
Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
Ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: May cause skin irritation.
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.
Chronic symptoms	: May cause genetic defects. May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Benzene (71-43-2)	
LC50 fish 1	7.2 – 11.7 mg/l Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>), 96 hrs.
EC50 Daphnia 1	8.76 – 15.6 mg/l Water flea (<i>Daphnia magna</i>), 48 hrs
Hydrogen sulfide (7783-06-4)	
LC50 fish 1	0.002 mg/l Lake whitefish (<i>Coregonus clupeaformis</i>), 96 hrs.
n-Hexane (110-54-3)	
LC50 fish 1	2.101 – 2.981 mg/l Fathead minnow (<i>Pimephales promelas</i>), 96 hrs.

12.2. Persistence and degradability

Petroleum Crude Oil (Sweet)	
Persistence and degradability	No information available.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.
- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

- Transport document description : UN1267 Petroleum crude oil, 3, I
- UN-No.(DOT) : 1267
- DOT NA no. : UN1267
- Proper Shipping Name (DOT) : Petroleum crude oil
- Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Hazard labels (DOT) : 3 - Flammable liquid



- Packing group (DOT) : I - Great Danger
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L
- DOT Vessel Stowage Location : E - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded.

Additional information

- Other information : No supplementary information available.

Transport by sea

- UN-No. (IMDG) : 1267
- Proper Shipping Name (IMDG) : PETROLEUM CRUDE OIL
- Class (IMDG) : 3 - Flammable liquids
- Packing group (IMDG) : I - substances presenting high danger

Air transport

- UN-No. (IATA) : UN1267
- Proper Shipping Name (IATA) : Petroleum Crude Oil
- Class (IATA) : 3 - Flammable Liquids
- Packing group (IATA) : I - Great Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Petroleum Crude Oil (Sweet)	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard Fire hazard
Ethylbenzene (100-41-4)	
CERCLA RQ	1000 lb
Section 313	Listed on US SARA Section 313
Toluene (108-88-3)	
CERCLA RQ	1000 lb
Section 313	Listed on US SARA Section 313

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Benzene (71-43-2)		
CERCLA RQ		10 lb
Section 313		Listed on US SARA Section 313
Xylene (108-38-3)		
CERCLA RQ		1000 lb
Section 313		Listed on US SARA Section 313
p-Xylene (106-42-3)		
CERCLA RQ		1000 lb
Section 313		Listed on US SARA Section 313
o-Xylene (95-47-6)		
CERCLA RQ		1000 lb
Section 313		Listed on US SARA Section 313
Hydrogen sulfide (7783-06-4)		
Section 313		Listed on US SARA Section 313
Naphthalene (91-20-3)		
CERCLA RQ		100 lb
Section 313		Listed on US SARA Section 313
Vanadium (7440-62-2)		
CERCLA RQ		5000 lb
Section 313		Listed on US SARA Section 313
Copper (7440-50-8)		
CERCLA RQ		1000 lb
Section 313		Listed on US SARA Section 313
Chlorine (7782-50-5)		
Section 302 (EHS) TPQ		100 lb
Section 304 EHS RQ		10 lb
CERCLA RQ		10 lb
Section 313		Listed on US SARA Section 313
Methanesulfonyl chloride, Trichloro- (594-42-3)		
Section 302 (EHS) TPQ		500 lb
Section 304 EHS RQ		100 lb
CERCLA RQ		100 lb
Section 313		Listed on US SARA Section 313
Nickel (7440-02-0)		
Section 313		Listed on US SARA Section 313

15.2. International regulations

No additional information available.

15.3. US State regulations

California Proposition 65

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

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Benzene (71-43-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL) Maximum allowable dose level (MADL)
Yes	Yes	No	Yes	NSRL: 13 µg/day (inhalation) 6.4 µg/day (oral) MADL: 49 µg/day (inhalation) 24 µg/day (oral)
Toluene (108-88-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Maximum allowable dose level (MADL)
No	Yes	No	No	No
Ethylbenzene (100-41-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Maximum allowable dose level (MADL)
Yes	No	No	No	54 µg/day (inhalation) 41 µg/day (oral)
Naphthalene (91-20-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	5.8 µg/day
Nickel (7440-02-0)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	No
Petroleum distillates (naphtha) (8002-05-9)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				
Ethane (74-84-0)				
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List				
Propane (74-98-6)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				
Isobutane (75-28-5)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				
Butane (106-97-8)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				
Neopentane (463-82-1)				
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List				

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Isopentene (78-78-4) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Pentane (109-66-0) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Benzene (71-43-2) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Toluene (108-88-3) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List
Ethylbenzene (100-41-4) U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
m-Xylene (108-38-3) U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - New Jersey - Right to Know Hazardous Substance List
p-Xylene (106-42-3) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
o-Xylene (95-47-6) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Naphthalene (91-20-3) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Hydrogen sulfide (7783-06-4) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Nickel (7440-02-0) U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
Vanadium (7440-62-2) U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Copper (7440-50-8) U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Chlorine (7782-50-5) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

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Sulfur (7704-34-9)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Methanesulfonyl Chloride, Trichloro- (594-42-3)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Massachusetts - Right To Know List – Extraordinarily Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know)

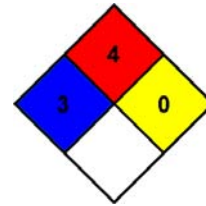
Ethanethiol (75-08-1)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Massachusetts - Right To Know List – Extraordinarily Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know)

SECTION 16: Other information

Indication of changes : Revision 2.0
Revision date : 11/20/2017
Other information : Author: BCS.

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard : 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3*
Flammability : 4
Physical : 0
Personal Protection : Safety glasses, Gloves, Dust & vapor respirator

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