Diluent Oil - Mesquite

Safety Data Sheet

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SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Diluent Oil - Mesquite

Other means of identification : Tank 9

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

Use of the substance/mixture : Fuel

1.3. Details of the supplier of the safety data sheet

EnLink Midstream
1722 Routh Street
Suite 1300
Dallas, TX 75201
www.enlink.com

1.4. Emergency telephone number

Emergency number : 866-394-9839
CHEMTREC: 1-800-824-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flammable liquids Category 1	H224
Skin corrosion/irritation Category 2	H315
Germ cell mutagenicity Category 1B	H340
Carcinogenicity Category 1A	H350
Reproductive toxicity Category 2	H361
Specific target organ toxicity (single exposure) Category 3	H335
Specific target organ toxicity (single exposure) Category 3	H336
Specific target organ toxicity (repeated exposure) Category 1	H372
Hazardous to the aquatic environment - Acute Hazard Category 2	H401
Hazardous to the aquatic environment - Chronic Hazard Category 2	H411

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS02 GHS07 GHS08 GHS09

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
H224 - Extremely flammable liquid and vapor
H315 - Causes skin irritation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H340 - May cause genetic defects
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H372 - Causes damage to organs (central nervous system, nervous system, respiratory system/digestive system) through prolonged or repeated exposure (Dermal, Inhalation, oral)
H401 - Toxic to aquatic life
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 electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge
P260 - Do not breathe fume, gas, spray, vapors
P261 - Avoid breathing fume, mist, spray, vapors
P264 - Wash exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear appropriate PPE
P302+P352 - If on skin: Wash with plenty of water
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 comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention
P312 - Call POISON CONTROL if you feel unwell
P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see Section 4 on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use Small Fire: Dry chemical, CO2, water spray or regular foam. Large Fire: Water spray, fog or regular foam. to extinguish
P391 - Collect spillage
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to comply with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Natural gas condensates (petroleum), Low boiling point naphtha - unspecified, [A complex combination of hydrocarbons separated as a liquid from natural gas in a surface separator by retrograde condensation. It consists mainly of hydrocarbons having carbon numbers predominantly in the range of C2 to C20. It is a liquid at atmospheric temperature and pressure.]	(CAS No) 64741-47-5	100	Flam. Liq. 1, H224 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Pentane	(CAS No) 109-66-0	<= 9.2315	Simple Asphy, H380 Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 STOT SE 3, H336 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
n-hexane	(CAS No) 110-54-3	<= 7.6691	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Isopentane	(CAS No) 78-78-4	<= 6.2478	Aquatic Acute 2, H401
Methylcyclohexane	(CAS No) 108-87-2	<= 5.3395	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Heptane, n-heptane	(CAS No) 142-82-5	<= 4.8035	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Hexane (containing < 5 % n-hexane (203-777-6)), 2- methylpentane	(CAS No) 107-83-5	<= 4.7509	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
n-Butane	(CAS No) 106-97-8	<= 3.4564	Simple Asphy, H380 Flam. Gas 1, H220 Liquefied gas, H280
3-methylheptane	(CAS No) 589-81-1	<= 3.3843	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
3-methylhexane	(CAS No) 589-34-4	<= 2.3209	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Octane	(CAS No) 111-65-9	<= 2.1363	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Toluene	(CAS No) 108-88-3	<= 1.9362	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
2-methylhexane	(CAS No) 591-76-4	<= 1.7347	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Name	Product identifier	%	Classification (GHS-US)
2-methylheptane	(CAS No) 592-27-8	<= 1.1665	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzene	(CAS No) 71-43-2	<= 1.0068	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304
Nonane	(CAS No) 111-84-2	<= 0.9063	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:gas), H332 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
m-xylene	(CAS No) 108-38-3	<= 0.5331	Not classified
Decane	(CAS No) 124-18-5	<= 0.4397	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Acute 3, H402
Propane	(CAS No) 74-98-6	<= 0.3903195	Simple Asphy, H380 Flam. Gas 1, H220 Compressed gas, H280
Ethylbenzene	(CAS No) 100-41-4	<= 0.3043	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401
Isobutane	(CAS No) 75-28-5	<= 0.3003	Simple Asphy, H380 Flam. Gas 1, H220
o-Xylene	(CAS No) 95-47-6	<= 0.2219	Flam. Liq. 3, H226 Aquatic Acute 2, H401
p-xylene	(CAS No) 106-42-3	<= 0.1855	Not classified
Sulfur	(CAS No) 7704-34-9	<= 0.024002931	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315
Methanol	(CAS No) 67-56-1	<= 0.0126	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
Methane	(CAS No) 74-82-8	<= 0.0022885	Flam. Gas 1, H220 Compressed gas, H280
Ethanol, ethyl alcohol	(CAS No) 64-17-5	<= 0.0009	Flam. Liq. 2, H225 Carc. 1A, H350
Hydrogen Sulfide	(CAS No) 7783-06-4	< 0.0005	Flam. Gas 1, H220 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:gas), H330 Aquatic Acute 1, H400
Carbon Dioxide	(CAS No) 124-38-9	<= 0.00000977	Compressed gas, H280
Ethane	(CAS No) 74-84-0		Flam. Gas 1, H220 Compressed gas, H280

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Keep victim warm and quiet. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

First-aid measures after skin contact : Remove contaminated clothing. In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. Wash with plenty of soap and water. In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.

First-aid measures after eye contact : Immediately flush with large amounts of water, holding eyelids open, for at least 20 minutes. Repeat if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance if irritation persists.

First-aid measures after ingestion : Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. Get Immediate Medical Attention.

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

Symptoms/injuries : Asphyxiation. May cause damage to organs. Suspected of damaging the unborn child. Suspected of causing cancer (Inhalation).

Symptoms/injuries after inhalation : Gas may be irritating to respiratory tract. This product is an asphyxiant gas which can cause unconsciousness/death if OXYGEN levels are sufficiently reduced. In high concentrations, vapors are narcotic and may cause headache, fatigue, dizziness and nausea. May cause cancer by inhalation.

Symptoms/injuries after skin contact : Skin irritation or more serious disorders may occur upon prolonged and repeated contact due to skin defatting.

Symptoms/injuries after eye contact : Causes serious eye irritation.

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

Chronic symptoms : Chronic exposure to benzene (a component of crude oil) may cause serious damage to health by all routes of exposure. Chronic oral and inhalation exposure may cause severe effects on the blood system, including damage to the bone marrow, leading to a decrease in production or changes to the cells of hemoglobin, hematocrit, red and white blood cells. Effects may occur with an exposure level as low as 10 ppm for 24 weeks. Benzene may also cause harmful changes to the immune system. Benzene is a confirmed human carcinogen. See Section 11 of this SDS for further information.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Small Fire: Dry chemical, CO_2, water spray or regular foam. Large Fire: Water spray, fog or regular foam.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

Reactivity : Stable under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Move containers from fire area if you can do it without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from.

Protection during firefighting : Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Other information : If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Eliminate ignition sources. Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing gas/vapor even with proper respiratory protection.

Emergency procedures : Consider initial downwind evacuation for at least 300 meters (1000 feet). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Large Spill: Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Methods for cleaning up : All equipment used when handling the product must be grounded. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Take precautionary measures against static discharge. Use only with adequate ventilation. Wear appropriate personal protective equipment and use exposure controls as indicated in Section 8 of this SDS. Vent slowly to the atmosphere when opening. Avoid all contact with skin and eyes. Avoid breathing product dust or vapors. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Do not reuse container. No open flames. No smoking.

Hygiene measures : Practice good housekeeping. Wash thoroughly after handling. Change contaminated clothing. Do not reuse until laundered.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed.

Incompatible materials : Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Natural gas condensates (petroleum), Low boiling point naphtha - unspecified, [A complex combination of hydrocarbons separated as a liquid from natural gas in a surface separator by retrograde condensation. It consists mainly of hydrocarbons having carbon numbers predominantly in the range of C2 to C20. It is a liquid at atmospheric temperature and pressure.] (64741-47-5)

Not applicable

Pentane(109-66-0)		
ACGIH	ACGIH TWA (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (mg/m^3)	2950 mg/m^3
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
IDLH	US IDLH (ppm)	1500 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m^3)	350
NIOSH	NIOSH REL (TWA) (ppm)	120 ppm
NIOSH	NIOSH REL (ceiling) (mg/m^3)	1800 mg/m^3 [15-minute]
NIOSH	NIOSH REL (ceiling) (ppm)	610 ppm [15-minute]

n-hexane (110-54-3)		
ACGIH	ACGIH TWA (mg/m^3)	176 mg/m^3
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	Remark (ACGIH)	CNS impair; peripheral
OSHA	OSHA PEL (TWA) (mg/m^3)	1800 mg/m^3
OSHA	OSHA PEL (TWA) (ppm)	500 ppm

n-hexane (110-54-3)		
IDLH	US IDLH (ppm)	1100 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m³)	180 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	50 ppm

n-Butane (106-97-8)		
ACGIH	ACGIH STEL (ppm)	1000 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	800 ppm

Octane (111-65-9)		
ACGIH	ACGIH TWA (ppm)	300 ppm
ACGIH	Remark (ACGIH)	URT irr
OSHA	OSHA PEL (TWA) (mg/m³)	2350 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	500 ppm

Methylcyclohexane (108-87-2)		
ACGIH	ACGIH TWA (ppm)	400 ppm
ACGIH	Remark (ACGIH)	URT irr; CNS impair; liver & kidney
OSHA	OSHA PEL (TWA) (mg/m³)	2000 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	500 ppm

Propane (74-98-6)		
ACGIH	ACGIH TWA (mg/m³)	4508 mg/m³
ACGIH	ACGIH TWA (ppm)	2500 ppm
ACGIH	Remark (ACGIH)	Asphyxiant; CNS effects; Explosive
OSHA	OSHA PEL (TWA) (mg/m³)	1800 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
IDLH	US IDLH (ppm)	2100 ppm [10%LEL]
NIOSH	NIOSH REL (TWA) (mg/m³)	<= 1800 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm

3-methylhexane (589-34-4)
Not applicable

2-methylhexane (591-76-4)
Not applicable

3-methylheptane (589-81-1)
Not applicable

2-methylheptane (592-27-8)
Not applicable

Isobutane (75-28-5)		
ACGIH	ACGIH STEL (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	none
NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	800 ppm

Isopentane (78-78-4)		
ACGIH	ACGIH TWA (mg/m³)	1770 mg/m³ (TLV listed under Pentane, All isomers)
ACGIH	ACGIH TWA (ppm)	600 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	2950 mg/m³

Isopentane (78-78-4)		
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	350 mg/m³ from Pentane
NIOSH	NIOSH REL (TWA) (ppm)	120 ppm from Pentane
NIOSH	NIOSH REL (ceiling) (mg/m³)	1800 mg/m³ [15-minute]
NIOSH	NIOSH REL (ceiling) (ppm)	610 ppm [15-minute]

Toluene (108-88-3)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	Visual impair; female repro;
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm
OSHA	Remark (OSHA)	(2) See Table Z-2.
IDLH	US IDLH (ppm)	500 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	375 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m³)	75 mg/m³
NIOSH	NIOSH REL (STEL) (ppm)	150 ppm

Benzene (71-43-2)		
ACGIH	ACGIH TWA (mg/m³)	1.6 mg/m³
ACGIH	ACGIH TWA (ppm)	0.50 ppm
ACGIH	ACGIH STEL (mg/m³)	8 mg/m³
ACGIH	ACGIH STEL (ppm)	2.5 ppm
ACGIH	Remark (ACGIH)	Leukemia
OSHA	OSHA PEL (TWA) (ppm)	1 ppm (See 29 CFR 1910.1028) OSHA AL 0.5 ppm TWA
OSHA	OSHA PEL (STEL) (ppm)	5 ppm
OSHA	Remark (OSHA)	Engineering and work practice controls shall be used to keep exposures below 10 ppm unless it is proven to be not feasible.
IDLH	US IDLH (ppm)	500 ppm Ca
NIOSH	NIOSH REL (TWA) (ppm)	0.1 ppm Ca
NIOSH	NIOSH REL (STEL) (ppm)	1 ppm

Sulfur (7704-34-9)
Not applicable

Hydrogen Sulfide (7783-06-4)		
ACGIH	ACGIH TWA (mg/m³)	1.4 mg/m³
ACGIH	ACGIH TWA (ppm)	1 ppm
ACGIH	ACGIH STEL (mg/m³)	7 mg/m³
ACGIH	ACGIH STEL (ppm)	5 ppm
ACGIH	Remark (ACGIH)	URT irr; CNS impair
OSHA	Remark (OSHA)	(2) See Table Z-2.
IDLH	US IDLH (ppm)	100 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	0 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
NIOSH	NIOSH REL (ceiling) (mg/m³)	15 mg/m³

Ethylbenzene (100-41-4)		
ACGIH	ACGIH TWA (mg/m^3)	87 mg/m^3
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
OSHA	OSHA PEL (TWA) (mg/m^3)	435 mg/m^3
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
IDLH	US IDLH (ppm)	800 ppm
NIOSH	NIOSH REL (TWA) (mg/m^3)	435 mg/m^3
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m^3)	545 mg/m^3
NIOSH	NIOSH REL (STEL) (ppm)	125 ppm

Methane (74-82-8)		
ACGIH	ACGIH TWA (ppm)	Formerly 1000 ppm Based on Aliphatic hydrocarbon gases, Alkanes [C1-C4] ; Refer to Appendix F : Minimal Oxygen Content of the 2014 TLV Book
ACGIH	Remark (ACGIH)	Simple Asphyxiant; Explosive

Ethane (74-84-0)		
ACGIH	ACGIH TWA (ppm)	Formerly 1000 ppm Based on Aliphatic hydrocarbon gases, Alkanes [C1-C4] ; Refer to Appendix F : Minimal Oxygen Content of the 2014 TLV Book
ACGIH	Remark (ACGIH)	Simple Asphyxiant if Oxygen level is 19.5 by volume; Explosive

Carbon Dioxide (124-38-9)		
ACGIH	ACGIH TWA (mg/m^3)	9000 mg/m^3
ACGIH	ACGIH TWA (ppm)	5000 ppm
ACGIH	ACGIH STEL (mg/m^3)	54000 mg/m^3
ACGIH	ACGIH STEL (ppm)	30000 ppm
ACGIH	Remark (ACGIH)	Asphyxia
OSHA	OSHA PEL (TWA) (mg/m^3)	9000 mg/m^3
OSHA	OSHA PEL (TWA) (ppm)	5000 ppm
IDLH	US IDLH (ppm)	40000 ppm

Methanol (67-56-1)		
ACGIH	ACGIH TWA (mg/m^3)	262 mg/m^3
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (mg/m^3)	328 mg/m^3
ACGIH	ACGIH STEL (ppm)	250 ppm
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
OSHA	OSHA PEL (TWA) (mg/m^3)	260 mg/m^3
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
IDLH	US IDLH (ppm)	6000 ppm
NIOSH	NIOSH REL (TWA) (mg/m^3)	260 mg/m^3
NIOSH	NIOSH REL (TWA) (ppm)	200 ppm
NIOSH	NIOSH REL (STEL) (mg/m^3)	328 mg/m^3
NIOSH	NIOSH REL (STEL) (ppm)	250 ppm

Ethanol, ethyl alcohol (64-17-5)		
ACGIH	ACGIH STEL (mg/m^3)	1880 mg/m^3

ACGIH	ACGIH STEL (ppm)	1000 ppm

Ethanol, ethyl alcohol (64-17-5)		
ACGIH	Remark (ACGIH)	URT irr
OSHA	OSHA PEL (TWA) (mg/m³)	1900 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
IDLH	US IDLH (ppm)	3300 ppm [10%LEL]
NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm

Heptane, n-heptane (142-82-5)		
ACGIH	ACGIH TWA (ppm)	400 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	2000 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	500 ppm

Nonane (111-84-2)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	Remark (ACGIH)	CNS impair

Decane (124-18-5)
Not applicable

hexane (containing < 5 % n-hexane (203-777-6)), 2-methylpentane (107-83-5)		
ACGIH	ACGIH TWA (mg/m³)	1760 mg/m³
ACGIH	ACGIH TWA (ppm)	500 ppm
ACGIH	ACGIH STEL (mg/m³)	3500 mg/m³
ACGIH	ACGIH STEL (ppm)	1000 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	350 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm

o-Xylene (95-47-6)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm

p-xylene (106-42-3)
Not applicable

m-xylene (108-38-3)
Not applicable

8.2. Exposure controls

Appropriate engineering controls : Devices for detecting and reporting the presence of hazardous gases should be present. Provide sufficient ventilation to control exposure levels below airborne exposure limits. Use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult current NFPA Standard 91 and ACGIH manual on Industrial Ventilation for design of exhaust system. Have eye baths available at locations where there is potential for eye contact. Provide a safety shower at locations where skin contact can occur. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Avoid all unnecessary exposure.

Nitrile. Viton®. Viton®/Butyl Rubber. Tychem® Responder®.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical.

Chemical goggles or safety glasses.

Depending on the risk, wear a tight, long apron and boots or suitable chemical protection clothing.

For excessive gas concentrations, use only NIOSH/MSHA-approved, self contained breathing apparatus.

Personal protective equipment :

Materials for protective clothing :

Hand protection :

Eye protection :

Skin and body protection :

Respiratory protection :

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear, colorless liquid.
Color	: Colorless to light straw
Odor	: Petroleum-like, gasoline-likr or rotten eggs
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: -12.22 - 28.61 °C (10.90-83.5ºF)
Flash point	: < 10 °C (50ºF)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: RVP 8.27 PSI @100°F / 12.53 VPCR4 @ 37.8°C
Relative vapor density at 20 °C	: No data available
Relative density	: 0.6305
Solubility	: Insoluble in water.
Log Pow	: No data available
Auto-ignition temperature	: 245 °C (473ºF)
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Vapors may form explosive mixtures with air.
Oxidizing properties	: No data available

9.2. Other information

Gas group	: Compressed gas
API Gravity	66.7

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Air contact. Heat. Sparks, open flame, and other ignition sources.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

May release flammable gases. Combustion may produce carbon monoxide and other harmful substances.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Natural gas condensates (petroleum), Low boiling point naphtha - unspecified, [A complex combination of hydrocarbons separated as a liquid from natural gas in a surface separator by retrograde condensation. It consists mainly of hydrocarbons having carbon numbers predominantly in the range of C2 to C20. It is a liquid at atmospheric temperature and pressure.] (64741-47-5)

LC50 inhalation rat (ppm)	600mg/m3 [Meditsina Truda i Promyshlennaya Ekologiya. Industrial Medicine and Ecology. Vol. (1), Pg. 12, 1996.]

Pentane (109-66-0)	
LD50 oral rat	400 mg/kg National Technical Information Service. Vol. OTS0556690,
ATE US (oral)	400.000 mg/kg body weight
ATE US (vapors)	364.000 mg/l/4h

n-hexane (110-54-3)	
LD50 oral rat	25 g/kg Industrial Health. Vol. 32, Pg. 145, 1994.
LC50 inhalation rat (ppm)	48000 ppm/4h

n-Butane (106-97-8)	
LC50 inhalation rat (mg/l)	658 mg/l/4h Farmakologiya i Toksikologiya Vol. 30, Pg. 102, 1967.

Octane (111-65-9)	
LC50 inhalation rat (ppm)	25257 ppm/4h (118 g/m^3) Gigiena Truda i Professional'nye Zabolevaniya. Labor Hygiene and Occupational Diseases. Vol. 32(10), Pg. 23, 1988.
ATE US (gases)	25257.000 ppmV/4h

Methylcyclohexane (108-87-2)	
LD50 oral rat	> 3200 mg/kg National Technical Information Service. Vol. OTS0556685
LC50 inhalation rat (ppm)	82 ppm/1h National Technical Information Service. Vol. OTS0556685
ATE US (gases)	41.000 ppmV/4h

Isobutane (75-28-5)	
LC50 inhalation rat (ppm)	570000 ppm
ATE US (vapors)	658.000 mg/l/4h

Benzene (71-43-2)	
LD50 oral rat	930 mg/kg
LD50 dermal rabbit	> 9400 µl/kg
LC50 inhalation rat (ppm)	5714 ppm/4h

Sulfur (7704-34-9)	
LD50 oral rat	> 8437 mg/kg Gigiena Truda i Professional'nye Zabolevaniya. Labor Hygiene and Occupational Diseases. Vol. 18(5), Pg. 48, 1974.
LD50 dermal rabbit	<= 2000 mg/kg
ATE US (dermal)	1100.000 mg/kg body weight

Hydrogen Sulfide (7783-06-4)	
LC50 inhalation rat (ppm)	444 ppm/4h
ATE US (gases)	444.000 ppmV/4h
ATE US (vapors)	0.500 mg/l/4h
ATE US (dust, mist)	0.050 mg/l/4h

Ethylbenzene (100-41-4)	
LD50 oral rat	<= 3500 mg/kg
LD50 dermal rabbit	<= 15400 mg/kg
LC50 inhalation rat (ppm)	< 4000 ppm/4h American Industrial Hygiene Association Journal. Vol. 23, Pg. 95, 1962.
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h

Ethane (74-84-0)	
Additional information	From a toxicologic standpoint, methane and ethane are of low anesthetic potency and are practically inert; however, at very high concentrations, they act as a simple asphyxiant and can cause suffocation by displacement of oxygen from breathing atmosphere, below the critical level of 19.5% oxygen that is required to sustain life

Methanol (67-56-1)	
LD50 oral rat	5630 mg/kg Gigiena Truda i Professional'nye Zabolevaniya. Labor Hygiene and Occupational Diseases. Vol. 19(11), Pg. 27, 1975.
LD50 dermal rabbit	15800 mg/kg Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 74, 1974.

LC50 inhalation rat (mg/l)	83.9 mg/l/4h

Methanol (67-56-1)	
LC50 inhalation rat (ppm)	64000 ppm/4h Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 74, 1974.
ATE US (oral)	100.000 mg/kg body weight
ATE US (dermal)	300.000 mg/kg body weight
ATE US (gases)	700.000 ppmV/4h
ATE US (vapors)	3.000 mg/l/4h
ATE US (dust, mist)	0.500 mg/l/4h

Ethanol, ethyl alcohol (64-17-5)	
LD50 oral rat	7060 mg/kg Toxicology and Applied Pharmacology. Vol. 16, Pg. 718, 1970.
ATE US (oral)	7060.000 mg/kg body weight

Heptane, n-heptane (142-82-5)	
LC50 inhalation rat (ppm)	25131 ppm/4h (103gm/m3/4H) Gigiena Truda i Professional'nye Zabolevaniya. Labor Hygiene and Occupational Diseases. Vol. 32(10), Pg. 23, 1988.
ATE US (gases)	25131.000 ppmV/4h

Nonane (111-84-2)	
LC50 inhalation rat (ppm)	3200 ppm/4h Toxicology and Applied Pharmacology. Vol. 44, Pg. 53, 1978.
ATE US (gases)	3200.000 ppmV/4h
ATE US (vapors)	16.800 mg/l/4h

Decane (124-18-5)	
LC50 inhalation rat (ppm)	1369 ppm (8 Hour) Pharmacology and Toxicology Vol. 62, Pg. 259, 1988.

Hexane (containing < 5 % n-hexane (203-777-6)), 2-methylpentane (107-83-5)	
LD50 oral rat	25000 mg/kg
LC50 inhalation rat (ppm)	48000 ppm
ATE US (oral)	25000.000 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : May cause genetic defects.

Carcinogenicity : May cause cancer.

Toluene (108-88-3)	
IARC group	3 - Not classifiable

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

Ethanol, ethyl alcohol (64-17-5)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure) : May cause respiratory irritation. May cause drowsiness or dizziness.

Methanol (67-56-1)	
Additional information	Irritation to the eyes, CNS depression, systemic damage to the eyes

Specific target organ toxicity (repeated exposure) : Causes damage to organs (central nervous system, nervous system, respiratory system/digestive system) through prolonged or repeated exposure (Dermal, Inhalation, oral).

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Gas may be irritating to respiratory tract. This product is an asphyxiant gas which can cause unconsciousness/death if OXYGEN levels are sufficiently reduced. In high concentrations, vapors are narcotic and may cause headache, fatigue, dizziness and nausea. May cause cancer by inhalation.

Symptoms/injuries after skin contact	:	Skin irritation or more serious disorders may occur upon prolonged and repeated contact due to skin defatting.
Symptoms/injuries after eye contact	:	Causes serious eye irritation.
Symptoms/injuries after ingestion	:	May be fatal if swallowed and enters airways.
Chronic symptoms	:	Chronic exposure to benzene (a component of crude oil) may cause serious damage to health by all routes of exposure. Chronic oral and inhalation exposure may cause severe effects on the blood system, including damage to the bone marrow, leading to a decrease in production or changes to the cells of hemoglobin, hematocrit, red and white blood cells. Effects may occur with an exposure level as low as 10 ppm for 24 weeks. Benzene may also cause harmful changes to the immune system. Benzene is a confirmed human carcinogen. See Section 11 of this SDS for further information.

SECTION 12: Ecological information

12.1. Toxicity

Pentane (109-66-0)	
LC50 fish	9.87 mg/l mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia	9.74 mg/l mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish	11.59 mg/l mg/l (Exposure time: 96 h - Species: Pimephales promelas)

n-hexane (110-54-3)	
LC50 fish	2500 (≤ 113) µg/l 96 hr Fathead minnow (pimephales promelas)

Octane (111-65-9)	
EC50 other aquatic organisms 1	0.38 Species: water flea)

Methylcyclohexane (108-87-2)	
LC50 fish	5.8 (5.8 - 181000) mg/l

Isopentane (78-78-4)	
LC50 fish	0.1 g/l (Coho salmon, silver salmon 96hr)
EC50 Daphnia	2.3 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Hydrogen Sulfide (7783-06-4)	
LC50 fish	58.4 µg/l Goldfish (Carassius auratus); 23.4 µg/l White sucker (Catostomus commersoni); 15.3 µg/l Lake whitefish (Coregonus clupeaformis); 38.7 µg/l Northern pike (Esox Lucius); 3.20 µg/l Asian redtail catfish (Hemibagrus nemurus); 846.7 µg/l Channel catfish (Ictalurus punctatus); 23.1 µg/l Bluegill (Lepomis macrochirus); 78.1 µg/l Largemouth bass (Micropterus salmoides); 38.0 µg/l Rainbow trout,donaldson trout (Oncorhynchus mykiss); 35.6 µg/l Yellow perch (Perca flavescens); 57.3 µg/l Fathead minnow (Pimephales promelas); 7.00 µg/l Brown trout (Salmo trutta); 29.4 µg/l Brook trout (Salvelinus fontinalis); 42.0 µg/l Walleye Stizostedion vitreum

Ethylbenzene (100-41-4)	
LC50 fish	2.6 mg/l Mysidopsis bahia (mysid shrimp)
EC50 Daphnia	2.93 mg/l MacLean, M.M., and K.G. Doe 1989. The Comparative Toxicity of Crude and Refined Oils to Daphnia magna and Artemia. Environment Canada, EE-111, Dartmouth, Nova Scotia :64 p.
ErC50 (algae)	5 mg/l Selenastrum capricornutum (algae)

Methanol (67-56-1)	
LC50 fish	24000 (15000 - 29400) mg/l Poirier, S.H., M.L. Knuth, C.D. Anderson-Buchou, L.T. Brooke, A.R. Lima, and P.J. Shubat 1986. Comparative Toxicity of Methanol and N,N-Dimethylformamide to Freshwater Fish and Invertebrates. Bull.Environ.Contam.Toxicol. 37(4):615-621; Bengtsson, B.E., L. Renberg, and M. Tarkpea 1984. Molecular Structure and Aquatic Toxicity - an Example with C1-C13 Aliphatic Alcohols. Chemosphere 13(5/6):613-622
EC50 Daphnia	3290 (2500 - 48100) mg/l Guilhermino, L., T. Diamantino, M.C. Silva, and A.M.V.M. Soares 2000. Acute Toxicity Test with Daphnia magna: An Alternative to Mammals in the Prescreening of Chemical Toxicity?. Ecotoxicol.Environ.Saf. 46(3):357-362
EC50 Daphnia	24500 (22200 - 46800) Randall, T.L., and P.V. Knopp 1980. Detoxification of Specific Organic Substances by Wet Oxidation. J.Water Pollut.Control Fed. 52(8):2117-2130

Ethanol, ethyl alcohol (64-17-5)	
LC50 fish	11000 mg/l Bengtsson, B.E., L. Renberg, and M. Tarkpea 1984. Molecular Structure and Aquatic Toxicity - an Example with C1-C13 Aliphatic Alcohols. Chemosphere 13(5/6):613-622

Ethanol, ethyl alcohol (64-17-5)	
EC50 Daphnia	9950 mg/l Takahashi, I.T., U.M. Cowgill, and P.G. Murphy 1987. Comparison of Ethanol Toxicity to Daphnia magna and Ceriodaphnia dubia Tested at Two Different Temperatures: Static Acute Toxicity Test Results. Bull.Environ.Contam.Toxicol. 39(2):229-236; Ziegenfuss, P.S., W.J. Renaudette, and W.J. Adams 1986. Methodology for Assessing the Acute Toxicity of Chemicals Sorbed to Sediments: Testing the Equilibrium Partitioning Theory. In: T.M.Poston and R.Purdy (Eds.), Aquatic Toxicology and Environmental Fate, 9th Volume, ASTM STP 921, Philadelphia, PA :479-493

Heptane, n-heptane (142-82-5)	
LC50 fish	375 mg/l Ghatak, D.B., M.M. Hossain, and S.K. Konar 1988. Acute Toxicity of n-Heptane and n-Hexane on Worm and Fish. Environ.Ecol. 6(4):943-947

Decane (124-18-5)	
LC50 fish	> 1000 mg/l
EC50 Daphnia	18 mg/l LeBlanc, G.A. 1980. Acute Toxicity of Priority Pollutants to Water Flea (Daphnia magna). Bull.Environ.Contam.Toxicol. 24(5):684-691 (OECDG Data File)

o-Xylene (95-47-6)	
LC50 fish	7.6 - 39.8 mg/l Holcombe, G.W., G.L. Phipps, A.H. Sulaiman, and A.D. Hoffman 1987. Simultaneous Multiple Species Testing: Acute Toxicity of 13 Chemicals to 12 Diverse Freshwater Amphibian, Fish, and Invertebrate Families. Arch.Environ.Contam.Toxicol. 16:697710 (OECDG Data File)
EC50 Daphnia	<= 3.82 mg/l Holcombe, G.W., G.L. Phipps, A.H. Sulaiman, and A.D. Hoffman 1987. Simultaneous Multiple Species Testing: Acute Toxicity of 13 Chemicals to 12 Diverse Freshwater Amphibian, Fish, and Invertebrate Families. Arch.Environ.Contam.Toxicol. 16:697710 (OECDG Data File)
ErC50 (algae)	4.7 mg/l Galassi, S., M. Mingazzini, L. Vigano, D. Cesareo, and M.L.Tosato 1988. Approaches to Modeling Toxic Responses of Aquatic Organisms to Aromatic Hydrocarbons. Ecotoxicol.Environ.Saf. 16(2):158-169

12.2. Persistence and degradability

Diluent Oil - Mesquite	
Persistence and degradability	May cause long-term adverse effects in the environment.

Isobutane (75-28-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Pentane109-66-0)	
Log Pow	3.39

n-Butane (106-97-8)	
Log Pow	2.89

Propane (74-98-6)	
Log Pow	2.3

Isobutane (75-28-5)	
BCF fish	1.57 - 1.97
Log Pow	2.88 (at 20 °C)
Bioaccumulative potential	Not established.

Isopentane (78-78-4)	
Log Pow	3.2 - 3.3

Hydrogen Sulfide (7783-06-4)	
BCF fish	(no bioaccumulation expected)
Log Pow	0.45 (at 25 °C)

Ethane (74-84-0)	
Log Pow	<= 2.3

CARBON DIOXIDE (124-38-9)	
BCF fish	(no bioaccumulation)

CARBON DIOXIDE (124-38-9)	
Log Pow	0.83

hexane (containing < 5 % n-hexane (203-777-6)), 2-methylpentane (107-83-5)	
Log Pow	3.6

12.4. Mobility in soil

Ethane (74-84-0)	
Mobility in soil	If released to soil, ethane is expected to have very high mobility based upon an estimated Koc of 37.

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.

GWPmix comment : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Recover or recycle if possible. Dispose of contents/container to comply with local/regional/national/international.

Additional information : Handle empty containers with care because residual vapors are flammable.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1268 Petroleum products, n.o.s, 3, I

UN-No.(DOT) : UN1268

Proper Shipping Name (DOT) : Petroleum products, n.o.s

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : I - Great Danger

Hazard labels (DOT) : 3 - Flammable liquid

Dangerous for the environment : Yes

Marine pollutant : Yes

201

243

DOT Packaging Non Bulk (49 CFR 173.xxx) : 144 - If transported as a residue in an underground storage tank (UST), as defined in 40 CFR 280.12, that has been cleaned and purged or rendered inert according to the American Petroleum Institute (API) Standard 1604 (IBR, see 171.7 of this subchapter), then the tank and this material are not subject to any other requirements of this subchapter. However, sediments remaining in the tank that meet the definition for a hazardous material are subject to the applicable regulations of this subchapter

DOT Packaging Bulk (49 CFR 173.xxx) : T11 - 6 178.274(d)(2) Normal ..... 178.275(d)(3)

DOT Special Provisions (49 CFR 172.102) : TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling

TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32 F)

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

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

Emergency Response Guide (ERG) Number : 128

Other information : No supplementary information available.

TDG

Transport document description : UN1268 PETROLEUM DISTILLATES, N.O.S., 3, I

UN-No. (TDG) : UN1268

Proper Shipping Name (TDG) : PETROLEUM DISTILLATES, N.O.S.

TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids

Packing group : I - Great Danger

TDG Special Provisions : 92 - (1)The consignor must classify these dangerous goods on the basis of samples. (2)The consignor must make available to the Minister, on reasonable notice given by the Minister, a document that explains the sampling method and includes the following information: (a)the scope of the method; (b)the sampling apparatus; (c)the sampling procedures; (d)the frequency and conditions of sampling; and (e)a description of the quality control management system in place. Many methods are available for the sampling of petroleum products. An example can be found in American Society for Testing and Materials Standard ASTM D4057-12, “Standard Practice for Manual Sampling of Petroleum and Petroleum Products”. The frequency and conditions of sampling should allow for the variability of the dangerous goods to ensure representativeness. The classification assigned to the dangerous goods should reflect the properties of the dangerous goods during transport. SOR/2014-152,150 - An emergency response assistance plan (ERAP) is required for these dangerous goods under subsection 7.1(6) of Part 7 (Emergency Response Assistance Plan)

Explosive Limit and Limited Quantity Index : 0.5 L

Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 1 L

Passenger Carrying Ship Index : Forbidden

Transport by sea

UN-No. (IMDG) : 1268

Proper Shipping Name (IMDG) : PETROLEUM DISTILLATES, N.O.S.

Class (IMDG) : 3 - Flammable liquids

Packing group (IMDG) : III - substances presenting low danger

Limited quantities (IMDG) : 5 L

Air transport

UN-No. (IATA) : 1268

Proper Shipping Name (IATA) : Petroleum products, n.o.s.

Class (IATA) : 3 - Flammable Liquids

Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Natural gas condensates (petroleum), Low boiling point naphtha - unspecified, [A complex combination of hydrocarbons separated as a liquid from natural gas in a surface separator by retrograde condensation. It consists mainly of hydrocarbons having carbon numbers predominantly in the range of C2 to C20. It is a liquid at atmospheric temperature and pressure.] **(64741-47-5)**
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Pentane (109-66-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313

EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA

n-hexane (110-54-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb

n-Butane (106-97-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313

Octane (111-65-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

methylcyclohexane (108-87-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Propane (74-98-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313

3-methylhexane (589-34-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-methylhexane (591-76-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

3-methylheptane (589-81-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-methylheptane (592-27-8)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Isobutane (75-28-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313

Isopentane (78-78-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313

Toluene (108-88-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb

Benzene (71-43-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	10 lb

Sulfur (7704-34-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Hydrogen Sulfide (7783-06-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

Ethylbenzene (100-41-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA
CERCLA RQ	1000 lb

Methane (74-82-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313

Ethane (74-84-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313	

Carbon Dioxide (124-38-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb

Ethanol, ethyl alcohol (64-17-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Heptane, n-heptane (142-82-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA

Nonane (111-84-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Decane (124-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Hexane (containing < 5 % n-hexane (203-777-6)), 2-methylpentane **(107-83-5)**	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

o-Xylene (95-47-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb

p-xylene (106-42-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA
CERCLA RQ	100 lb

m-xylene (108-38-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

Benzene (71-43-2)
Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

Ethylbenzene (100-41-4)
Listed on IARC (International Agency for Research on Cancer)

Ethanol, ethyl alcohol (64-17-5)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

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	No significance risk level (NSRL)
No	Yes	Yes	Yes	7000

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)
Yes	Yes	No	Yes	24

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	No significance risk level (NSRL)
Yes	No	No	No	54

Methanol (67-56-1)				
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)
No	Yes	No	No	

Pentane (109-66-0)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

n-hexane (110-54-3)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

n-Butane (106-97-8)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Octane (111-65-9)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Methylcyclohexane (108-87-2)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Propane (74-98-6)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

3-methylhexane (589-34-4)

U.S. - New Jersey - Right to Know Hazardous Substance List

Isobutane (75-28-5)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Isopentane (78-78-4)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Toluene (108-88-3)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

Benzene (71-43-2)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - West Virginia - Air Quality - Toxic Air Pollutant Emission Limits

Sulfur (7704-34-9)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Hydrogen Sulfide (7783-06-4)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS)
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

Ethylbenzene (100-41-4)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

Methane (74-82-8)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Ethane (74-84-0)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Carbon Dioxide (124-38-9)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Methanol (67-56-1)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

Ethanol, ethyl alcohol (64-17-5)
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Heptane, n-heptane (142-82-5)
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Nonane (111-84-2)
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Decane (124-18-5)
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Hexane (containing < 5 % n-hexane (203-777-6)), 2-methylpentane **(107-83-5)**
U.S. - New Jersey - Right to Know Hazardous Substance List

o-Xylene (95-47-6)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

p-xylene (106-42-3)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

m-xylene (108-38-3)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date	: 11/09/2016 and 06/03/2019
Data sources	: GESTIS DNEL Database [http://dnel-en.itrust.de/nxt/gateway.dll/dnel_en/000000.xml?f=templates$fn=default.htm$vid=dneleng:ddbeng$3.0/]. ChemADVISOR, Inc.[https://www.chemadvisor.com].

Full text of H-phrases:

H220	Extremely flammable gas
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H315	Causes skin irritation
H330	Fatal if inhaled
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H380	May displace oxygen and cause rapid suffocation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is 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 : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

SDS US (GHS HazCom 2012)