

SAFETY DATA SHEET

Enterprise Products



Date Issued: 02/17/2012
SDS No: EP201-018
Date Revised: 07/08/2013
Revision No: 1

Condensate

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Condensate
GENERAL USE: Refinery Feedstock
CHEMICAL FAMILY: Petroleum Hydrocarbon

DISTRIBUTOR

Enterprise Products
1100 Louisiana
Houston, TX 77002
Corporate Contact: 888-806-3794

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC:1-800-424-9300

Emergency Telephone Number(s) may be used for any type of emergency response, hazmat, regulatory responding, or DOT information regarding this product.

COMMENTS: There are no restrictions in regards to the Emergency Telephone Number(s) provided.

2. HAZARDS IDENTIFICATION

HAZARD DESIGNATION

"F" – Extremely Flammable



"Xn" - Harmful

"T" - Toxic

GHS CLASSIFICATIONS

Health	Physical
Aspiration Hazard, Category 1 Carcinogenicity, Category 1	Flammable Liquids, Category 1A

GHS LABELS

 Flame	 Health hazard
WARNING	DANGER
H224: Extremely flammable liquid and vapor.	H304: May be fatal if swallowed and enters airways. H350: May cause cancer.
WARNING	

Condensate

May displace oxygen and cause rapid suffocation.

PRECAUTIONARY STATEMENT(S)

Prevention:

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P210: Keep away from heat/sparks/open flames/hot surfaces – no smoking.
- P281: Use personal protective equipment as required.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting/.../ equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- P308+P313: IF exposed or concerned: Get medical advice/attention.
- P377: Leaking gas fire: Do not extinguish unless leak can be stopped safely.
- P381: Eliminate all ignition sources if safe to do so.
- P303+P361+P353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P370+P378: In case of fire: Use a Class B, multipurpose dry chemical, or carbon dioxide fire extinguisher for extinction.
- P301+A1600: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P331: Do NOT induce vomiting.

Storage:

- P405: Store locked up.
- P410+P403: Protect from sunlight. Store in a well-ventilated place.
- P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

- P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear, colorless to amber or dark brown liquid.

IMMEDIATE CONCERNS: Aspiration into lungs may occur directly or following ingestion. This can cause chemical pneumonitis, which may be fatal. May cause irritation of respiratory tract. Skin defatting may occur and cause drying and reddening of skin. Please read entire contents of Section 2 of this SDS for details.

POTENTIAL HEALTH EFFECTS

EYES: Eye contact may cause slight to moderate irritation. Splashing of liquid into the eyes will cause stinging and pain. Vapors may cause irritation and inflammation (conjunctivitis), causing redness and tearing. Direct contact with liquefied gas may cause severe and possibly permanent eye injury due to frostbite from rapid liquid evaporation.

SKIN: Contact may cause moderate irritation of the skin and mucous membranes. Prolonged or repeated contact with the skin may cause defatting of the skin, leading to redness, itching, inflammation, cracking, dermatitis (rash) and possible secondary infection. Contact with liquid or cold vapor can cause frostbite.

Condensate

SKIN ABSORPTION: This material is not expected to be absorbed through the skin but exposure may cause frostbite. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed. Short term contact may result in tissue destruction and severe burns. High pressure skin injections are serious medical emergencies. The appearance of injury may be delayed for a few hours but may cause tissue to be swollen, discolored and extremely painful; permanent damage or death may result without adequate medical treatment.

INGESTION: Aspiration hazard if swallowed. Can enter lungs and cause damage and death. Ingestion may cause gastrointestinal disturbances, such as irritation, nausea, vomiting, diarrhea, and central nervous system effects similar to alcohol intoxication. Other effects include gastritis, headache, drowsiness, loss of consciousness, convulsions, cyanosis, pneumonitis, pulmonary edema and capillary hemorrhaging of the lung and internal organs.

INHALATION: Inhalation may be irritating to mucous membrane and respiratory tract. Vapors may cause nose and throat irritation. May result in dizziness, drowsiness and headache. Asphyxiation hazard. High concentrations in the immediate area can displace oxygen, causing the feeling of suffocation and CNS depression. Symptoms may include headache, excitation, euphoria, incoordination, blurred vision, light-headedness, fatigue, loss of consciousness and possible death from respiratory failure.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: May be fatal if swallowed. Simple asphyxiant. Harmful if inhaled or absorbed through skin. Causes skin, eye, and upper respiratory tract irritation. Can cause central nervous system depression. Can cause frostbite or freeze burns.

CHRONIC EFFECTS: Inhalation may produce mild intoxication, drowsiness, or loss of coordination. High concentrations produce intoxication followed by loss of consciousness, asphyxiation and death. May cause skin and eye irritation. May affect the respiratory and central nervous system.

CARCINOGENICITY: OSHA reports an 8-hour TWA of 1ppm. The NTP and IARC list benzene as a "human carcinogen."

MUTAGENICITY: Not Established.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Not Established.

TERATOGENIC EFFECTS: Not Established.

MEDICAL CONDITIONS AGGRAVATED: Persons with pre-existing skin disorders, respiratory disorders or impaired liver, kidney or heart function may be more susceptible to the effects of this product. Contact with full strength or even dilute formulations of this product above or at the TLV may aggravate pre-existing respiratory disorders in blood forming organs, leading to anemia, which may further degrade to leukemia. Butane has been shown to cause mild cardiac sensitization in laboratory test animals.

ROUTES OF ENTRY: Inhalation, ingestion, skin contact.

TARGET ORGAN STATEMENT: May cause damage to lungs, skin, eyes, and central nervous system.

CANCER STATEMENT: Middle distillates have caused cancer and kidney damage in laboratory animals.

SENSITIZATION: Not Established.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Vol. %	CAS	EINECS	Classification
Natural Gas Condensates	90 - 100	68919-39-1	272-896-3	T; R45, R46, R65

Condensate

Chemical Name	Vol. %	CAS	EINECS	Classification
Propane	20 - 60	74-98-6	200-827-9	F+; R12
Butane	10 - 40	106-97-8	203-448-7	F+; R12
Ethane	1 - 60	74-84-0	200-814-8	F+; R12
Pentane	5 - 25	109-66-0	203-692-4	F+,Xn, N; R12, R51/53, R65, R66, R67
Heptane	1 - 10	142-82-5	205-563-8	F; Xn; N; R11, R38, R65, R67, R50/53
n-Hexane	1 - 10	110-54-3	203-777-6	F, Xn, N; R11, R38, R48/20, R62, R65, R67, R51/53
Octane	1 - 10	111-65-9	203-892-1	F; Xn; N; R11, R38, R65, R67, R50/53
Cyclohexane	0.1 - 5	110-82-7	203-806-2	F,Xn,N; R11, R38, R65, R67, R50/53
Ethyl Benzene	0.1 - 5	100-41-4	202-849-4	F, Xn; R11, R20
Toluene	0.1 - 5	108-88-3	203-625-9	F, Xn; R11, R38, R48/20, R63, R65, R67
Xylene	0.1 - 5	1330-20-7	215-535-7	Xn; R10, R20/21, R38
Hydrogen Sulfide	0.1 - 2	7783-06-4	231-977-3	F+, T+, N; R12, R26, R50
Benzene	< 0.1 - 2	71-43-2	200-753-7	F, T; R45, R46, R11, R36/38, R48/23/24/25, R65
Natural Gas	may contain	8006-14-2	232-343-9	

COMMENTS: This may not be a complete list of components. Compositions given are typical values, not specifications.

(Full text of R-Phrases can be found under heading 16)

4. FIRST AID MEASURES

EYES: Contact with liquid or vapor can cause frostbite. Immediately flush gently with large amounts of lukewarm water, holding eyelids open, for at least 20 minutes. Seek medical assistance immediately.

SKIN: In case of frostbite, immediately warm affected area with lukewarm water not to exceed 40°C (105°F) for at least 20 minutes. Immediately remove contaminated clothing and wash affected skin thoroughly with soap and water. Discard contaminated leather shoes/gloves. Obtain medical assistance.

Condensate

INGESTION: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Have exposed individual rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Obtain medical assistance immediately and treat as directed by a medical professional.

INHALATION: Move victim to fresh air. Call 911, emergency medical service, or Emergency Phone Numbers(s) provided in Section 1 of this SDS. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

ANTIDOTES: Not Established.

NOTES TO PHYSICIAN:

CLINICAL TESTING & MEDICAL MONITORING FOR DELAYED EFFECTS - Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias (irregular beating) in persons exposed to this material.

ADDITIONAL INFORMATION: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First Aid Responders are advised to wear personal protective equipment as found in Section 8 of this SDS.

5. FIRE FIGHTING MEASURES

FLASH POINT: -112°C (-170°F) (Estimated).

FLAMMABLE LIMITS: 1.05 to 12.5

NOTES: Flammable Limits given as percentage volume in air at normal atmospheric temperature and pressure.

AUTOIGNITION TEMPERATURE: ~ 249°C (480°F)

NOTES: Based upon Methane.

FLAMMABLE CLASS: Class B.

DECOMPOSITION TEMPERATURE: Not Established.

EXTINGUISHING MEDIA:

SMALL FIRE - Class B fire extinguisher, carbon dioxide, multipurpose dry chemical, water fog or alcohol-resistant foam.

LARGE FIRE - Water fog or alcohol-resistant foam.

HAZARDOUS COMBUSTION PRODUCTS: Any combustion, including incomplete combustion, may form carbon monoxide and carbon dioxide. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

INAPPROPRIATE EXTINGUISHING MEDIA: Do not use water jet.

FIRE FIGHTING PROCEDURES:

PROTECTIVE ACTIONS TO TAKE DURING FIRE FIGHTING – DO NOT extinguish a leaking gas flame unless the leak can be stopped. In many cases it will be preferable to allow continued burning. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material. Do not get water inside containers. Use water spray or fog; do not use straight streams. Note: Use of water spray when fighting fire may be inefficient or cause a chemical reaction. Persons involved in firefighting response involving this product and its containers/packaging should refer to Section 8 for the proper selection of exposure controls and personal protective equipment.

FIRE FIGHTING EQUIPMENT: PRECAUTIONS FOR FIRE INVOLVING TANKS OR CAR/TRAILER LOADS – Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with

Condensate

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. Isolate for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

FIRE EXPLOSION: HIGHLY FLAMMABLE. Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated.

SENSITIVE TO STATIC DISCHARGE: Flowing gasoline can be ignited by self-generated static electricity; containers should be grounded and bonded.

SPECIFIC HAZARDS THAT MAY ARISE FROM THE PRODUCT - Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: For emergency information and procedures to follow in the case of an accidental release, call the Emergency Telephone Number(s) listed in Section 1 of this SDS. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Dike far ahead of liquid spill for later disposal. Never discharge releases directly into sewers or surface waters. Remove any ignition sources and protect from ignition. Water spray may reduce vapor; but may not prevent ignition in closed spaces. A vapor suppressing foam may be used to reduce vapors. Provide sufficient ventilation in the affected area(s) and wear appropriate personal protective equipment as indicated in Section 8 of this SDS when handling spill material.

LARGE SPILL: Use similar response procedures as indicated under Small Spill. Consider initial downwind evacuation for at least 300 meters (1000 feet).

MATERIALS & METHODS (EQUIPMENT & TECHNIQUES) FOR CONTAINMENT & CLEANUP: Call Emergency Telephone Number(s) provided in Section 1 of this SDS. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. Toxic hydrogen sulfide may be present during a release.

RELEASE NOTES: ENVIRONMENTAL PRECAUTIONS - Avoid contact of spilled material with soil and prevent runoff entering surface waterways. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SPECIAL PROTECTIVE EQUIPMENT: EMERGENCY & NON-EMERGENCY RESPONDERS - Refer to Section 8 for appropriate exposure controls and personal protective equipment (PPE).

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Handle in accordance with good industrial hygiene and safety practices. These practices include but are not limited to avoiding unnecessary exposure and prompt removal of material from eyes, skin, and clothing. If needed, take first aid actions as indicated in Section 4. Never use as a cleaning solvent or degreaser. Use explosion-proof electrical equipment. No smoking should be allowed in area of use.

HANDLING: Keep away from heat and flames. Keep away from oxidizing agents and dehydrating agents as contact may cause sudden reaction and fire.

STORAGE: Keep in airtight container away from all heat sources. Store in a segregated and approved area. Store in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Keep container in a well-ventilated area. Store away from incompatible materials. Store in the original container or an approved alternative made from compatible material. Storage containers should be grounded and bonded. Drums must be grounded and bonded and equipped with self-closing valves, pressure vacuum bungs and flame

Condensate

arresters. Do not store in unlabeled containers. Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. Treat empty containers in a similar fashion as residual product may exist. Use appropriate containment to avoid environmental contamination.

STORAGE TEMPERATURE: Store containers in a room with ambient temperature.

SPECIAL SENSITIVITY: HOW TO CONTROL THE EFFECTS OF WEATHER CONDITIONS, SUNLIGHT, HUMIDITY & VIBRATION - Not Established.

ELECTROSTATIC ACCUMULATION HAZARD: To minimize the hazard of static electricity during transfer operations, bonding and grounding may be necessary, but may not by themselves be sufficient. For more information, refer to OSHA Standard 29 CFR 1910.106; National Fire Protection Standard (NFPA) 77 - "Recommended Practice on Static Electricity;" and/or the American Petroleum Institute (API) Recommended Practice 2003 - "Protection Against Ignitions Arising Out of Static, Lighting and Stray Currents."

HOW TO AVOID EXPLOSIVE ATMOSPHERES, CORROSIVE CONDITIONS, FLAMMABILITY HAZARDS, EVAPORATIVE CONDITIONS & POTENTIAL IGNITION SOURCES - Not Established.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Natural Gas Condensates	TWA	N/E	N/E	N/E	N/E
	STEL	N/E	N/E	N/E	N/E
Propane	TWA	1000	1800	1000	N/E
	STEL	N/E	N/E	N/E	N/E
Butane	TWA	N/E	N/E	1000	N/E
	STEL	N/E	N/E	N/E	N/E
Ethane	TWA	N/E	N/E	1000	N/E
	STEL	N/E	N/E	N/E	N/E
Pentane	TWA	1000	2950	600	N/E
	STEL	N/E	N/E	N/E	N/E
Heptane	TWA	500	2000	400	N/E
	STEL	N/E	N/E	500	N/E
n-Hexane	TWA	500	1800	50	180
	STEL	N/E	N/E	N/E	N/E
Octane	TWA	500	2350	300	1400
	STEL	N/E	N/E	N/E	N/E
Cyclohexane	TWA	300	1050	100	350
	STEL	N/E	N/E	N/E	N/E

Condensate

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Ethyl Benzene	TWA	100	435	100	434
	STEL	N/E	N/E	125	543
Toluene	TWA	200	N/E	50	188
	STEL	300	N/E	N/E	N/E
Xylene	TWA	100	435	100	434
	STEL	N/E	N/E	150	651
Hydrogen Sulfide	TWA	N/E	N/E	1	5
	STEL	20	N/E	N/E	N/E
Benzene	TWA	1	N/E	0.5	N/E
	STEL	5	N/E	2.5	N/E

ENGINEERING CONTROLS: 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.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Employees should be provided with and required to use splash-proof safety goggles and splash shields where there is any possibility of product coming in contact with eyes. Ensure that eye wash station is operable and nearby.

SKIN: Any impervious gloves including nitrile, plastic or neoprene coated canvas gloves.

RESPIRATORY: Depending on airborne concentration a full-face supplied air respirator is recommended, because air purifying respirators cannot provide adequate protection.

PROTECTIVE CLOTHING: Long sleeve shirt and long pants or coveralls. Consider wearing butyl rubber apron or outerwear where splashing may occur. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.

WORK HYGIENIC PRACTICES: Consider the potential hazards of this material, applicable exposure limits, job activities, environmental working conditions, and other substances in the workplace when designing engineering controls and selecting personal protective equipment (PPE). The user should read and understand all manufacturer instructions and limitations supplied with the personal protection equipment before use.

OTHER USE PRECAUTIONS: THERMAL, FIRE & CHEMICAL HAZARDS- Refer to Prevention Phrases listed under Precautionary Statement(s) in Section 2 of this SDS.

PPE PICTOGRAMS:



Condensate

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Hydrocarbon odor. If present hydrogen sulfide has a rotten egg odor, but should not be used as an indicator of a hazardous condition because it can overwhelm and deaden the sense of smell.

APPEARANCE: Clear, colorless liquid to amber or dark brown liquid.

pH: Not Established.

PERCENT VOLATILE: 100

VAPOR PRESSURE: 7.85 to 43.3 mmHg at 25°C (77°F)

VAPOR DENSITY: > 1 Air = 1.

BOILING POINT: ~ -57°C (-70°F) to 200°C (437°F)

MELTING POINT: -86°C (-122°F)

FLASH POINT: -112°C (-170°F) (Estimated).

SOLUBILITY IN WATER: Negligible.

EVAPORATION RATE: Initially high when fresh but diminishes with progressive weathering
(n-BUTYL ACETATE = 1)

DENSITY: Not Established.

SPECIFIC GRAVITY: 0.60 to 0.65 at 15.56°C (60°F)

NOTES: H₂O = 1

COEFF. OIL/WATER: Not Established.

ODOR THRESHOLD: Not Established.

FLAMMABILITY: Refer to Section 2 and Section 5 of this SDS for classification and flammability characteristics.

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: This product is anticipated to be stable under normal ambient storage and handling conditions of temperature and pressure.

POLYMERIZATION: This product is not anticipated to cause hazardous reactions or polymerizations under normal ambient storage and handling conditions of temperature and pressure.

CONDITIONS TO AVOID: Avoid contact with incompatible materials such as heat, open flame, other sources of ignition and oxidizing materials. Avoid exposure to heat and air. Hot containers may explode.

POSSIBILITY OF HAZARDOUS REACTIONS: This product may be chemically reactive under certain circumstances. Avoid adverse conditions and incompatible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: This product may produce carbon monoxide, carbon dioxide, and other noncombustible hydrocarbons (smoke). Hydrogen sulfide gas, which is highly toxic, may also be released.

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

STABILIZERS: Not Established.

Condensate

11. TOXICOLOGICAL DATA

ACUTE

Chemical Name	Oral LD ₅₀ (rat)	Dermal LD ₅₀ (rabbit)	Inhalation LC ₅₀ (rat)
Natural Gas Condensates	14000 mg/kg	> 3750 mg/kg	> 5.2 mg/L (4 hours)
Propane	N/E	N/E	658 mg/L (4 hours)
Butane	N/E	N/E	658g/m ³
Ethane	N/E	N/E	800000 ppm (15 min)
Pentane	N/E	N/E	364 g/m ³
Heptane	N/E	N/E	103 g/m ³
n-Hexane	25 g/kg	N/E	48000 ppm (4 hours)
Octane	N/E	N/E	25260 ppm (4 hours)
Cyclohexane	12,705 mg/kg	N/E	13.9 mg/L (4 hours)
Ethyl Benzene	≤ 3500 mg/kg	≤ 3500 mg/kg	≤ 55000
Toluene	636 mg/kg	14100 ug/kg	49 g/m ³
Xylene	4300 mg/kg	< 1700 mg/kg	5000 ppm (4 hours)
Hydrogen Sulfide	N/E	N/E	444 ppm
Benzene	930 mg/kg	> 9400 ug/kg	10000 ppm (7 hours)
Natural Gas	N/E	N/E	> 800000 ppm (15 min)

EYES: Not Established.

DERMAL LD50: Toxicological data does not exist for this mixture.

SKIN ABSORPTION: Toxicological data does not exist for this mixture.

ORAL LD50: Toxicological data does not exist for this mixture.

INHALATION LC50: Toxicological data does not exist for this mixture.

ACUTE TOXICITY & HEALTH EFFECTS - This product is nontoxic and is a simple asphyxiant; however it does have slight anesthetic properties and higher concentrations may cause dizziness. Refer to Section 2 of this SDS for additional hazards identification.

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Ethyl Benzene		2B	
Toluene		3	
Xylene		3	
Benzene	1	1	Carcinogen

ADDITIONAL NOTES:

Benzene - Caused cancer (leukemia), damage to the blood-producing system and serious blood disorders from prolonged, high exposure based on human epidemiology studies. Caused genetic effects and effects

Condensate

on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus in laboratory animal studies.

Ethylbenzene - Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

n-Hexane - Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system. Simultaneous exposure to methyl ethyl ketone (MEK) or methyl isobutyl ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown.

SENSITIZATION: Not Established.

REPRODUCTIVE EFFECTS: Not Established.

TARGET ORGANS:

SINGLE EXPOSURE EFFECTS - Exposure may have adverse health effects.

REPEATED DOSE EFFECTS - Repeated exposure may cause frostbite injuries, respiratory, and central nervous system effects, depending on routes of exposure.

MUTAGENICITY: Not Established.

INTERACTIVE EFFECTS: Not Established.

12. ECOLOGICAL DATA

ENVIRONMENTAL DATA: MOBILITY IN SOIL POTENTIAL – Not Established.

ECOTOXICOLOGICAL INFORMATION: TERRESTRIAL/MICROORGANISM TOXICITY –

ACUTE: Ecological data does not exist for this mixture.

CHRONIC: Ecological data does not exist for this mixture.

BIOACCUMULATION/ACCUMULATION: Ecological data does not exist for this mixture.

AQUATIC TOXICITY:

ACUTE - Ecological data does not exist for this mixture.

CHRONIC - Ecological data does not exist for this mixture.

CHEMICAL FATE INFORMATION: PERSISTENCE & DEGRADABILITY – Not Established.

GENERAL COMMENTS: Any other adverse environmental effects, such as environmental fate (exposure), ozone depletion potential, photochemical ozone creation potential, endocrine disrupting potential, and global warming potential are indicated in this section if data exists. Data from laboratory studies and from scientific literature is noted in this section if available. Otherwise, data has not been established.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: It is recommended that this product, in any form, be incinerated in a suitable combustion chamber for disposal. If possible, use a flare. Allow material to evaporate or disperse leaks in air, ensuring gas is diluted below lower flammable limit. Waste mixtures containing these gases should not be allowed to enter drains and sewers where there is danger of their vapors being ignited. Product when discarded or disposed of is a hazardous waste according to Federal regulations (40 CFR 261) due to its ignitability. Empty containers should be disposed of in a similar fashion due to presence of product residue. Follow applicable Federal, state, and local regulations.

Condensate

PRODUCT DISPOSAL: Persons conducting disposal of this product and its containers/packaging should refer to Section 8 for the proper selection of exposure controls and personal protective equipment.

EMPTY CONTAINER: Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death.

PHYSICAL & CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL OPTIONS: Not Established.

COMMENTS: Dispose of material in accordance with national, state, regional, and local regulations. Never discharge directly into sewers or surface waters. Consult with environmental regulatory agencies for guidance on acceptable disposal practices for the product, in any form, and its containers/packaging.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Petroleum distillates, n.o.s.

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: 1268

PACKING GROUP: I

NAERG: 128

LABEL: 3: Flammable liquid.

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION



SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Fire Hazard. Immediate (Acute) Health Hazard. Delayed (Chronic) Health hazard.

FIRE: Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Vol. %	CAS
n-Hexane	1 - 10	110-54-3
Cyclohexane	0.1 – 5	110-82-7
Ethyl Benzene	0.1 – 5	100-41-4
Toluene	0.1 – 5	108-88-3
Xylene	0.1 – 5	1330-20-7
Hydrogen Sulfide	0.1 – 2	7783-06-4
Benzene	< 0.1 – 5	71-43-2

Condensate**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

Chemical Name	Vol. %	CERCLA RQ
n-Hexane	1 - 10	5,000
Cyclohexane	0.1 – 5	1,000
Ethyl Benzene	0.1 – 5	1,000
Toluene	0.1 – 5	1,000
Xylene	0.1 – 5	100
Hydrogen Sulfide	0.1 – 2	100
Benzene	< 0.1 – 5	10

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Natural Gas Condensates	68919-39-1
Propane	74-98-6
Butane	106-97-8
Ethane	74-84-0
Pentane	109-66-0
Heptane	142-82-5
n-Hexane	110-54-3
Octane	111-65-9
Cyclohexane	110-82-7
Ethyl Benzene	100-41-4
Toluene	108-88-3
Xylene	1330-20-7
Hydrogen Sulfide	7783-06-4
Benzene	71-43-2

CLEAN AIR ACT

Chemical Name	Vol. %	CAS
Propane	20 - 60	74-98-6
Butane	10 - 40	106-97-8
Ethane	1 - 60	74-84-0
Pentane	5 - 25	109-66-0
Hydrogen Sulfide	0.1 – 2	7783-06-4

Condensate**STATES WITH SPECIAL REQUIREMENTS**

Chemical Name	Requirements
Propane	Delaware Air Quality Management Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey RTK Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Butane	CA Hazardous Substance Delaware Air Quality Management Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey RTK Hazardous Substance Pennsylvania Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Ethane	Delaware Air Quality Management Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New Jersey TCPA EHS Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Pentane	CA Hazardous Substance Delaware Air Quality Management Idaho Air Pollutant Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey TCPA EHS New Jersey RTK Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Heptane	Idaho Air Pollutant Massachusetts Hazardous Substance Minnesota Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants

Condensate

Chemical Name	Requirements
n-Hexane	Massachusetts Hazardous Substance Delaware Air Quality Management Idaho Air Pollutant Illinois Toxic Air Contaminant Maine Hazardous Air Pollutant Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New Jersey RTK Hazardous Substance New York Hazardous Substance North Carolina Toxic Air Contaminant Pennsylvania Hazardous Substance Washington PELs for Air Contaminants Wisconsin Hazardous Air Containment
Octane	Idaho Air Pollutant Massachusetts Hazardous Substance Minnesota Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Cyclohexane	CA Hazardous Substance Delaware Air Quality Management Idaho Air Pollutant Maine Hazardous Air Pollutant Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New York Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants
Ethyl Benzene	CA Hazardous Substance CA Proposition 65 Substance Delaware Air Quality Management Idaho Air Pollutant Illinois Toxic Air Contaminant Maine Hazardous Air Pollutant Massachusetts Hazardous Substance Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New York Hazardous Substance Pennsylvania Hazardous Substance Washington PELs for Air Contaminants Wisconsin Hazardous Air Containment

Condensate

Chemical Name	Requirements
Toluene	CA Hazardous Substance CA Proposition 65 Substance Delaware Air Quality Management Idaho Air Pollutant Illinois Toxic Air Contaminant Maine Hazardous Air Pollutant Massachusetts Hazardous Substance Michigan Critical Material Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New Jersey RTK Hazardous Substance New York Hazardous Substance North Carolina Toxic Air Contaminant North Carolina Toxic Air Contaminant Pennsylvania Hazardous Substance Washington PELs for Air Contaminants Wisconsin Hazardous Air Containment
Xylene	Wisconsin Hazardous Air Containment CA Hazardous Substance Delaware Air Quality Management Idaho Air Pollutant Illinois Toxic Air Contaminant Maine Hazardous Air Pollutant Massachusetts Hazardous Substance Michigan Critical Material Minnesota Hazardous Substance New Jersey RTK Hazardous Substance North Carolina Toxic Air Contaminant Pennsylvania Hazardous Substance Washington PELs for Air Contaminants New York Hazardous Substance
Hydrogen Sulfide	CA Hazardous Substance Delaware Air Quality Management Idaho Air Pollutant Massachusetts Hazardous Substance Maine Hazardous Air Pollutant Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New Jersey TCPA EHS New York Hazardous Substance North Carolina Toxic Air Contaminant Pennsylvania Hazardous Substance Washington PELs for Air Contaminants Wisconsin Hazardous Air Containment
Benzene	CA Hazardous Substance Delaware Air Quality Management Illinois Toxic Air Contaminant Maine Hazardous Air Pollutant Massachusetts Hazardous Substance Michigan Critical Material

Condensate

Chemical Name	Requirements
	Minnesota Hazardous Substance New Jersey RTK Hazardous Substance New York Hazardous Substance North Carolina Toxic Air Contaminant Pennsylvania Hazardous Substance Washington PELs for Air Contaminants West Virginia Toxic Air Pollutant Wisconsin Hazardous Air Containment

CALIFORNIA PROPOSITION 65:

Chemical Name	Vol. %	Listed
Toluene	0.1 - 5	• Female Reproductive
Benzene	< 0.1 - 2	• Developmental Toxicity • Male Reproductive

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):

Class B - Division 2 - Flammable and Combustible Materials.

Class D - Division 2, Subdivision A - Poisonous and Infectious Materials

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION



"F+" - Extremely Flammable



"Xn" - Harmful



"T" - Toxic

16. OTHER INFORMATION

RELEVANT R-PHRASES:

R45: May cause cancer.

R46: May cause heritable genetic damage.

R65: Harmful: may cause lung damage if swallowed.

Condensate

R12: Extremely flammable.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapors may cause drowsiness and dizziness.

R11: Highly flammable.

R38: Irritating to skin.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R48/20: Harmful : danger of serious damage to health by prolonged exposure through inhalation.

R62: Possible risk of impaired fertility.

R20: Harmful by inhalation.

R63: Possible risk of harm to the unborn child.

R10: Flammable.

R20/21: Harmful by inhalation and in contact with skin.

R26: Very toxic by inhalation.

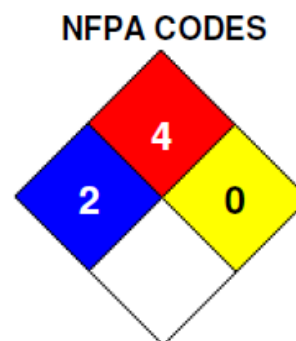
R36/38: Irritating to eyes and skin.

REASON FOR ISSUE: This SDS was compiled in conformance with GHS structure and standards, superseding all previous SDS of the aforementioned product(s).

REVISION SUMMARY: This SDS replaces the SDS issued on 2/17/2012.

PREPARED BY: Total Safety d/b/a EHS Services

HMIS RATING	
HEALTH	* 2
FLAMMABILITY	4
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H



HMIS RATINGS NOTES: Please refer to Section 8 of this SDS for recommended personal protective equipment.

MANUFACTURER SUPPLEMENTAL NOTES:

RADIOACTIVITY HAZARD - This information is given to call attention to the issue of "Naturally Occurring Radioactive Materials". Although Radon-222 levels in the product represented by the SDS do not present any direct Radon exposure hazard, customers should be aware of the potential for Radon daughter buildup within their processing systems, whatever the source of their product streams. For additional information please refer to the contact information in Section 1.

DATA SOURCES:

REFERENCES

ACGIH. 2012 Guide to Occupational Exposure Values. Cincinnati, OH. Signature Publications, 2012.

Forsberg, K.; Mansdorf, S.Z. Quick Selection Guide to Chemical Protective Clothing. Fifth Edition. Hoboken, NJ. John Wiley & Sons, 2007.

Lide, D.R. CRC Handbook of Chemistry and Physics. 88th Edition. Boca Raton, FL. CRC Press, 2008.

UNECE. Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Third Revised Edition. New York and Geneva. United Nations, 2009.

US DOT; Pipeline and Hazardous Materials Safety Administration. 2008 Emergency Response Guidebook. Neenah, WI. J.J. Keller & Associates, Inc. 2008.

Condensate

US EPA. Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. [Available] Online: <http://www.epa.gov/ceppo/pubs/title3.pdf>. Retrieved 02/02/2011.

ADDITIONAL SDS INFORMATION:

KEY / LEGEND

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - Agreement on Dangerous Goods by Road
CAA - Clean Air Act
CAS - Chemical Abstracts Service Registry Number
CDG - Carriage of Dangerous Goods By Road and Rail Manual
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CFR - Code of Federal Regulations
EINECS - European Inventory of Existing Chemical Substances Registry Number
ERG - Emergency Response Guidebook
EPCRA - Emergency Planning and Community Right-to-Know Act
GHS - Globally Harmonized System of Classification and Labeling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods Code
IMO - International Maritime Organization
N/E - Not Established
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
PPE - Personal Protective Equipment
RCRA - Resource Conservation and Recovery Act
RID - Regulations Concerning the International Transport of Dangerous Goods by Rail
RQ - Reportable Quantities
SARA - Superfund Amendments and Reauthorization Act of 1986
SDS - Safety Data Sheet
TCC - Tag Closed Cup
TDG - Transportation of Dangerous Goods
TLV - Threshold Limit Value
TSCA - Toxic Substance Control Act
UN/NA - United Nations / North American Number
UNECE - United Nations Economic Commission for Europe
US DOT - United States Department of Transportation
US EPA - United States Environmental Protection Agency
Vol. - Volume
WHMIS - Workplace Hazardous Materials Information System

GENERAL STATEMENTS: Other information not included anywhere else in this SDS is included in this section if, in fact, such data exists.

MANUFACTURER DISCLAIMER: This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.