

# Safety Data Sheet

According to OSHA HCS 2012 (29 CFR 1910.1200)



## Section 1: Identification

### Product Identifier:

Other means of identification:

### Condensate

- Crude Oil Condensate Drips
- Natural Gas Condensates, C2-C8
- Sour Condensate
- Field Condensate
- Lease Condensate
- Gas Drip Condensate
- Plant Condensate
- Casinghead Gasoline

SDS Number:

H4001.1

Intended Use:

Refinery Feedstock

Uses Advised Against:

All others

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Houston, TX 77079  
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Emergency Health and Safety Number:  
Chemtrec: 800-424-9300 (24 Hours)

## Section 2: Hazards Identification

- 2.1 Classified Hazards:**
- H224 – Flammable Liquids – Category 1
  - H361 – Suspected of damaging fertility or the unborn child
  - H315 – Skin corrosion/irritation – Category 2
  - H340 – May cause genetic defects
  - H373 – May cause damage to organs through prolonged or repeated exposure
  - H331 – Acute toxicity, Inhalation – Category 3
  - H336 – Specific target organ toxicity (single exposure) – Category 3
  - H350 – Carcinogenicity – Category 1A

**Other Hazards:** May contain or release poisonous hydrogen sulfide (H<sub>2</sub>S) gas

This product has not been tested by Texon L.P. for specific health hazards. Therefore, the information provided in this section includes health hazard information based on the product components.

### 2.2 Label Elements:



Hazard Pictograms:

Signal Word:

**DANGER!**

Hazard Statements:

Extremely Flammable Liquid and Vapor (H224)\*  
May cause genetic defects. (H340)

Causes skin irritation (H315)  
 Contains poisonous hydrogen sulfide gas, toxic if inhaled (H331)  
 Toxic if inhaled (H331)  
 May cause drowsiness or dizziness (H336)  
 May cause damage to organs through prolonged or repeated exposure. (H373)  
 Suspected of damaging fertility or the unborn child. (H361)  
 May cause cancer. (H350)

**Precautionary Statement(s):** Obtain special instructions before use. (P201)\*

**Prevention:** Do not handle until all safety precautions have been read and understood. (P202)\*  
 Keep away from heat, sparks, open flames, hot surfaces, NO SMOKING. (P210)  
 Keep container tightly closed. (P233)  
 Ground/bond container and receiving equipment. (P240)  
 Use explosion-proof electrical, lighting, ventilating equipment. (P241)  
 Use only non-sparking tools. (P242)  
 Take precautionary measures against static discharge. (P243)  
 Do not breathe mist, spray, vapors, dust, fumes, gas. (P260)  
 Avoid breathing fume, gas, mist, spray, vapors. (P261)  
 Wash hands thoroughly after handling. (P264)  
 Use only outdoors in a well-ventilated area. (P271)  
 Wear eye protection, protective clothing, protective gloves. (P280)  
 If on skin: wash with plenty of water. Take off and wash all contaminated clothing before reuse. If irritation occurs, seek medical attention. (P302 +P303+P313+P352 +P362)  
 If inhaled: remove persons to fresh air and keep comfortable for breathing. (P304 + P340)  
 If exposed or concerned: get medical advice/attention. (P308 +P313)  
 Call a doctor or POISON CENTER if you feel unwell. (P311 + P312)  
 Follow specific treatment, see "First Aid Measures" in Section 4. (P321)  
 In case of fire: use carbon dioxide (CO2), dry extinguishing powder to extinguish. (P370+P378)

**Response:** Leaking gas fire: Do not extinguish unless leak can be stopped safely. (P377)  
 Eliminate all ignition sources if safe to do so. (P381)  
 Wear protective gloves / protective clothing / eye protection / face protection. (P280)\*  
 Use personal protective equipment as required. (P281)\*

**Storage:** Store in well-ventilated place. Keep container tightly closed. Keep cool. (P403+P233+P235)  
 Store locked-up. (P405)

**Disposal:** Dispose of contents/container to comply with applicable local, national, and international regulations. (P501)

\*(Applicable GHS hazard code)

### Section 3: Composition/Information on Ingredients

Chemical Name	CASRN	Concentration <sup>1</sup>
Natural Gas Condensate (C2-C8)	68919-39-1	≤100%
n-Hexane	110-54-3	1-40%
Hydrogen Sulfide	7783-06-4	0.1-5%
Benzene	71-43-2	0.01-1%
Toluene	108-88-3	0.01-1%
Ethyl Benzene	100-41-4	0.01-1%
Xylenes	1330-20-7	0.01-1%

**NOTE:** Composition will vary with geographic location, geologic formation, temperature, and pressure.

1 All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Crude oil, natural gas, and natural gas condensate may contain minor amounts of sulfur, nitrogen, oxygen containing organic compounds and trace amounts of metals such as mercury, nickel, and vanadium. Composition can vary depending on source of crude.

## Section 4: First Aid Measures

**Eye Contact:** For eye contact with product, remove contact lenses, if present. Hold eyelids apart and gently flush the affected eye(s) with lukewarm water. Seek immediate medical attention.

**Skin Contact:** May be harmful if absorbed through the skin. Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops, seek medical attention. Wash contaminated clothing before reuse.

**Inhalation (Breathing):** Toxic by inhalation. Can act as simple asphyxiant. May contain hydrogen sulfide gas which may be fatal if inhaled. Overexposure may lead to headache, nausea, drowsiness, dizziness, incoordination, light-headedness, blurred vision, pulmonary edema, labored breathing, central nervous depression leading to coma and respiratory arrest. If breathing is difficult, oxygen or artificial respiration should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion (Swallowing):** Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

### Most important symptoms and effects:

**Acute:** Headache, drowsiness, dizziness, loss of coordination, disorientation, and fatigue.

**Delayed:** Dry skin and possible irritation with repeated or prolonged exposure.

**Notes to Physician:** At high concentrations hydrogen sulfide may produce pulmonary edema, respiratory depression, and/or respiratory paralysis. The first priority in treatment should be the establishment of adequate ventilation and the administration of 100% oxygen. Animal studies suggest that nitrites are a useful antidote, however, documentation of the efficacy of nitrites in humans is lacking. If the diagnosis of hydrogen sulfide poisoning is confirmed and if the patient does not respond rapidly to supportive care, the use of nitrites may be an effective antidote if delivered within the first few minutes of exposure. For adults the dose is 10 mL of a 3% sodium nitrite (NaNO<sub>2</sub>) solution (0.5 gm NaNO<sub>2</sub> in 15 mL water) I.V. over 2-4 minutes. The dosage should be adjusted in children or in the presence of anemia, and methemoglobin levels, arterial blood gases, and electrolytes should be monitored closely.

Epinephrine and sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents (e.g., in enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmias.

Federal regulations (29 CFR 1910.1028) specify medical surveillance programs for certain exposures to benzene above the action level or PEL (specified in Section (i) (1) (i) of the Standard). In addition, employees exposed in an emergency situation shall, as described in Section (i) (4) (i), provide a urine sample at the end of the shift for measurement of urine phenol.

**Other Comments:** Before attempting rescue, first responders should be alert to the possible presence of hydrogen sulfide, a poisonous gas with the smell of rotten eggs, and should consider the need for respiratory protection (see Section 8). Remove person to fresh air as quickly as possible. Immediately begin artificial respiration if breathing has ceased. Consider whether oxygen administration is needed. Obtain medical advice for further treatment.

## Section 5: Fire-Fighting Measures

## **NFPA 704 Hazard Class**

**Health: 2 Flammability: 4 Instability: 0**



0 (Minimal)  
1 (Slight)  
2 (Moderate)  
3 (Serious)  
4 (Severe)

**Extinguishing Media:** Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

### **Specific hazards arising from the material:**

**Unusual Fire & Explosion Hazards:** Extremely flammable. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Vapors may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapor/air explosion hazards indoors, in confined spaces, outdoors, or in sewers. If container is not properly cooled, it can rupture in the heat of a fire. Hazardous combustion/decomposition products, including hydrogen sulfide may be released by this material when exposed to heat or fire. Use caution and wear protective clothing, including respiratory protection.

**Hazardous Combustion Products:** Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

**Special protective actions for firefighters:** For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. If this cannot be done, allow fire to burn. Move undamaged containers from immediate hazard area if it can be done safely. Stay away from ends of container. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading of burning liquid with water used for cooling purposes.

**See Section 9 for flammable properties, including Flash Point and Upper and Lower Explosive Limits.**

## **Section 6: Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures:** Extremely flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Beware of accumulation of gas in low areas or contained areas, where explosive concentrations may occur. Prevent from entering drains or any place where accumulation may occur. Ventilate area and allow to evaporate. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons down-wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards, handling and storage.

**Environmental Precautions:** Stop spill/release if it can be done safely. Prevent spilled materials from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use foam on spills to minimize vapors. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water, notify appropriate authorities and advise shipping of any hazard. Spills into or upon navigable

waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number: 800-424-8802).

**Methods and material for Containment and Cleaning up:** Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water, remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken. All contaminated media used for the purpose of clean-up should be disposed of properly in accordance with all Federal, State, and Local regulations.

## Section 7: Handling and Storage

**Precautions for Safe Handling:** Keep away from ignition sources such as heat/sparks/open flames – No smoking. Take precautionary measures against static discharge. Non-sparking tools should be used. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. May contain or release dangerous levels of hydrogen sulfide. Do not breathe vapors or mists. Use only outdoors or in well-ventilated areas. Wear protective gloves/clothing and eye/face protection. Wear respiratory protection. Wash thoroughly after handling. Use good personal hygienic practices and wear appropriate personal protective equipment (PPE). Extremely Flammable. May vaporize easily at ambient temperatures. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low lying areas. Open container slowly to relieve any pressure. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29 CFR 1910.146. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

**Static Accumulation Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding of tanks, transfer piping, and storage tank level floats are necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. Special care should be given to ensure that special slow load procedures for "switch loading" are followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha). For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA) 77, 'Recommended Practice on Static Electricity', and the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Conditions for safe storage:** This material may contain or release poisonous hydrogen sulfide gas. In a tank, barge, or other closed container, the vapor space above this material may accumulate hazardous concentrations of hydrogen sulfide. Check atmosphere for oxygen content, hydrogen sulfide, and flammability prior to entry. Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post in area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Avoid exposing any part of compressed-gas cylinder to temperatures above 125°F(51.6°C). Gas cylinders should be stored outdoors or in well ventilated storerooms at no lower than ground level and should be quickly removable in an emergency.

## Section 8: Exposure Controls/Personal Protection

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH
Natural Gas Condensate	TWA: 300 ppm (as gasoline)	500 ppm TWA 2000 mg/m <sup>3</sup> TWA as petroleum Distillates (Naphtha)(Rubber Solvent)	0.5 ppm TWA 8hr. (as benzene) 0.25 ppm TWA 12 hr. (as benzene) 2.5 ppm STEL (as benzene)
n-Hexane	TWA: 50 ppm Skin	TWA: 500 ppm TWA 1800 mg/m <sup>3</sup>	TWA: 50 ppm
Hydrogen Sulfide	TWA: 1 ppm STEL: 5 ppm	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	TWA: 5 ppm 8hr TWA: 2.5 ppm 12hr STEL: 15ppm
Benzene	TWA: 0.5 ppm STEL: 2.5 ppm Skin	Ceiling: 25 ppm STEL: 5 ppm TWA: 1 ppm	TWA: .1 ppm
Toluene	TWA: 100 ppm	TWA: 100 ppm	TWA: 100 ppm
Ethyl benzene	TWA: 20 ppm	TWA: 100 ppm	TWA: 100 ppm
Xylene	TWA: 100 ppm	TWA: 100 ppm	TWA: 100 ppm

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

**Eye/Face Protection:** The use of eye protection (such as splash goggles) that meets or exceeds ANSI Z87.1 is recommended when there is potential liquid contact to the eye. Depending on conditions of use, a face shield may be necessary.

**Skin/Hand Protection:** The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, aprons, arm covers, hoods, coveralls, or encapsulated suits. Suggested protective materials: Nitrile

**Respiratory Protection:** A NIOSH approved, self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode should be used in situations of oxygen deficiency (oxygen content less than 19.5 percent), unknown exposure concentrations, or situations that are immediately dangerous to life or health (IDLH).

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

If benzene concentrations equal or exceed applicable exposure limits, OSHA requirements for personal protective equipment, exposure monitoring, and training may apply (29 CFR 1910.1028 - Benzene).

Workplace monitoring plans should consider the possibility that heavy metals such as mercury may concentrate in processing vessels and equipment presenting the possibility of exposure during various sampling and maintenance operations. Implement appropriate respiratory protection and the use of other protective equipment as dictated by monitoring results (See Sections 2 and 7).

Other Protective Equipment: Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

**Suggestion provided this Section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the**



performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

## Section 9: Physical and Chemical Properties

Data represent typical values and are not intended to be specifications. N/A = Not Applicable; N/D = Not Determined

<b>Appearance:</b> Colorless to Amber to Dark Brown	<b>Flash Point:</b> < -50° F/-46°C. Varies widely based on hydrocarbon content
<b>Physical Form:</b> Liquid	<b>Test Method:</b> Values provided are typical of similar products
<b>Odor:</b> Petroleum/Rotten egg/Sulfurous	<b>Initial Boiling Point/Range:</b> -20 to 800°F/-29 to 427°C. Varies widely based on hydrocarbon content
<b>Odor Threshold:</b> N/D	<b>Vapor Pressure:</b> 12-145 psia (Reid VP)
<b>pH:</b> N/A	<b>Partition Coefficient (n-octanol/water) (Kow):</b> N/D
<b>Vapor Density (air=1):</b> >1	<b>Melting/Freezing Point:</b> N/D
<b>Upper Explosive Limits (vol % in air):</b> 6.0	<b>Auto Ignition Temperature:</b> 590°F / 310°C
<b>Lower Explosive Limits (vol % in air):</b> <1.1	<b>Decomposition Temperature:</b> N/D
<b>Evaporation Rate (nBuAc=1):</b> >1	<b>Specific Gravity (water=1):</b> 0.6-0.8 @ 60°F (15.6°C)
<b>Particle Size:</b> N/A	<b>Bulk Density:</b> N/D
<b>Percent Volatile:</b> N/D	<b>Viscosity:</b> N/D
<b>Flammability (solid, gas):</b> Extremely Flammable	<b>Solubility in Water:</b> Negligible

## Section 10: Stability and Reactivity

**Stability:** Stable under normal ambient and anticipated conditions of use.

**Conditions to Avoid:** Avoid high temperatures and all possible sources of ignition. Prevent vapor accumulation.

**Material to Avoid (Incompatible Materials):** Avoid contact with strong oxidizing agents and strong reducing agents.

**Hazardous Decomposition Products:** Not anticipated under normal conditions of use.

**Hazardous Polymerization:** Not known to occur.

## Section 11: Toxicological Information

Information on Toxicological Effects of Substance/Mixture: Toxicological data does not exist for condensate mixtures as components vary widely. Toxicological Data is based on the components that may be present.

Acute Toxicity	Hazard	Additional Information	LC50/LD50 Data
Inhalation	If hydrogen sulfide gas is present – may be fatal if inhaled	May contain poisonous hydrogen sulfide gas. See signs and symptoms below	> 5.2mg/L
Dermal	Absorption through skin, eye contact	Benzene and aromatic hydrocarbons are known carcinogens	> 2g/kg
Oral	Ingestion is not anticipated		> 5 g/kg

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Skin Corrosion/Irritation:** May cause skin irritation.

**Serious Eye Damage/Irritation:** Causes eye irritation.

**Symptoms of Overexposure:** Effects of overexposure can include slight irritation of the respiratory tract, nausea, vomiting, and signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue). Continued exposure to high concentrations can result in vomiting, cardiac irregularities and sudden loss of consciousness.

This material contains hydrogen sulfide, a poisonous gas with the smell of rotten eggs. The smell disappears rapidly because of olfactory fatigue so odor may not be a reliable indicator of exposure. Effects of overexposure include irritation of the eyes, nose, throat and respiratory tract, blurred vision, photophobia (sensitivity to light), and pulmonary edema (fluid accumulation in the lungs). Severe exposures can result in nausea, vomiting, muscle weakness or cramps, headache, disorientation and other signs of nervous system depression, irregular heartbeats, convulsions, respiratory failure, and death.

**Skin Sensitization:** May cause skin irritation.

**Respiratory Sensitization:** May be fatal if inhaled.

**Specific Target Organ Toxicity (Single Exposure):** eyes, skin, respiratory system, central nervous system.

**Specific Target Organ Toxicity (Repeated Exposure):** eyes, skin, respiratory system, blood, central nervous system, liver, kidneys, bone marrow.

**Carcinogenicity:** May cause cancer based on component information.

**Germ Cell Mutagenicity:** Not expected to cause inheritable genetic effects.

**Reproductive Toxicity:** Certain components are known reproductive toxicants.

## Toxicological Effects of Components

### **Natural Gas Condensate (C2-8)**

**Carcinogenicity:** Two year inhalation studies of vaporized unleaded gasoline produced an increased incidence of kidney tumors in male rats and liver tumors in female mice. Repeated skin application of various petroleum naphthas in mice for two years resulted in an increased incidence of skin tumors but only in the presence of severe skin irritation. Follow-up mechanistic studies suggest that the occurrence of these tumors may be the consequence of promotional processes and not relevant to human risk assessment. Epidemiology data collected from a study of more than 18,000 petroleum marketing and distribution workers showed no increased risk of leukemia, multiple myeloma, or kidney cancer from gasoline exposure. Unleaded gasoline has been identified as a possible carcinogen by the International Agency for Research on Cancer.

**Target Organs:** Two year inhalation studies of wholly vaporized unleaded gasoline, and 90 days studies of various petroleum naphthas, did not produce significant target organ toxicity in laboratory animals. Nephropathy in male rats, characterized by the accumulation of alpha-2-u- globulin in epithelial cells of the proximal tubules was observed, however follow-up studies suggest that these changes are unique to the male rat.

**Reproductive Toxicity:** No evidence of developmental toxicity was found in pregnant laboratory animals (rats and mice) exposed to high vapor concentrations of unleaded gasoline and petroleum naphthas via inhalation. A two-generation reproductive toxicity study of vapor recovery gasoline did not adversely affect reproductive function or offspring survival and development.

### **n-Hexane**

**Target Organs:** Excessive exposure to n-hexane can result in peripheral neuropathies (nerve damage). The initial symptoms are symmetrical sensory numbness or paresthesia of distal portions of the extremities. Motor weakness is typically observed in muscles of the toes and fingers but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. The neurotoxic properties of n-hexane are potentiated by exposure to methyl ethyl ketone and methyl isobutyl ketone.

**Reproductive Toxicity:** Prolonged exposure to high concentrations of n-hexane (>1,000 ppm) resulted in decreased sperm count and degenerative changes in the testes of rats but not those of mice.

### **Benzene**

**Carcinogenicity:** Benzene is a known human carcinogen for all routes of exposure, and is known to produce acute myelogenous leukemia (a form of cancer) in humans. Benzene has been identified as a human carcinogen by IARC, the US National Toxicology Program, and the US Occupational Safety and Health Administration.

**Target Organs:** Prolonged or repeated exposures to benzene vapors can cause damage to the blood and blood forming organs, including disorders like leucopenia, thrombocytopenia, and aplastic anemia.

**Reproductive Toxicity:** Some studies in occupationally exposed women have suggested benzene exposure increased risk of miscarriage and stillbirth and decreased birth weight and gestational age. The size of the effects detected in these studies was small, and ascertainment of exposure and outcome in some cases relied on self-reports, which may limit the reliability of these results.

**Germ Cell Mutagenicity:** Benzene exposure has resulted in chromosomal aberrations in human lymphocytes and



animal bone marrow cells. Exposure has also been associated with chromosomal aberrations in sperm cells in human and animal studies.

### **Toluene**

**Carcinogenicity:** Exposure of rats and mice to toluene at concentrations ranging from 120-1200 ppm for two years did not demonstrate evidence of carcinogenicity. Toluene has not been listed as a carcinogen by IARC.

**Target Organs:** Epidemiology studies suggest that chronic occupational overexposure to toluene may damage color vision. Subchronic and chronic inhalation studies with toluene produced kidney and liver damage, hearing loss and central nervous system (brain) damage in laboratory animals. Intentional misuse by deliberate inhalation of high concentrations of toluene has been shown to cause liver, kidney, and central nervous system damage, including hearing loss and visual disturbances.

**Reproductive Toxicity:** Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. Decreased fetal body weight and increased skeletal variations in both inhalation and oral studies, but only at doses that were maternally toxic. No fetal toxicity was seen at doses that were not maternally toxic. Decreased sperm counts have been observed in male rats in the absence of a reduction in fertility. Toluene has been reported to cause mental or growth retardation in the children of solvent abusers who directly inhale toluene during pregnancy.

### **Hydrogen Sulfide**

**Target Organs:** May be fatal if inhaled.

## **Section 12: Ecological Information**

**Toxicity:** Acute aquatic toxicity studies on samples of gasoline and naphtha streams show acute toxicity values greater than 1 mg/L and mostly in the range 1-100 mg/L. These tests were carried out on water accommodated fractions, in closed systems to prevent evaporative loss. Results are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon composition. These substances should be regarded as toxic to aquatic organisms, with the potential to cause long term adverse effects in the aquatic environment. Classification: H411; Chronic Cat 2.

**Persistence and Degradability:** The hydrocarbons in this material are not readily biodegradable but are regarded as inherently biodegradable since their hydrocarbon components can be degraded by microorganisms.

**Persistence per IOPC Fund definition:** Non-Persistent

**Bioaccumulative Potential:** Log Kow values measured for the hydrocarbon components of this material range from 3 to greater than 6 and therefore are regarded as having the potential to bioaccumulate. In practice, metabolic processes or physical properties may prevent this effect or limit bioavailability.

**Mobility in Soil:** On release to water, hydrocarbons will float on the surface and since they are sparingly soluble, the only significant loss is volatilization to air. In air, these hydrocarbons are photodegraded by reaction with hydroxyl radicals with half lives varying from 6.5 days for benzene to 0.5 days for n-dodecane.

**Other Adverse Effects:** None anticipated.

## **Section 13: Disposal Considerations**

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed, but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

Container contents should be completely used and containers should be emptied prior to discard. Container residues could be considered to be hazardous wastes.

**EPA Waste Number(s):**

- D001 (Ignitability characteristic)
- D018 (Toxicity characteristic (Benzene))

**Section 14: Transport Information**

**U.S. Department of Transportation (DOT)**

**Shipping Description:**

If vapor pressure is > 300 kPa (43.5 psia) at 50°C (122°F) and H2S is > 8.8 molar %, shipping description is: **UN3160**, Liquefied gas, toxic, flammable, n.o.s., (Hydrogen sulfide, Butane), 2.3; 2.1, Inhalation Hazard Zone X (see Note below)

If vapor pressure is > 300 kPa (43.5 psia) at 50°C (122°F) and H2S is < 8.8 molar %, shipping description is: **UN1965**, Hydrocarbon gas mixture, liquefied, n.o.s., 2.1

If vapor pressure is <= 300 kPa (43.5 psia) at 50°C (122°F) and H2S is < 8.8 molar %, shipping description is: **UN3295**, Hydrocarbons, liquid, n.o.s., 3, I or II [I if BP < 35°C (95°F); II if BP > 35°C]

If vapor pressure is <= 300 kPa (43.5 psia) at 50°C (122°F) and H2S is <8.8 molar %, shipping description is: **UN1267**, Petroleum crude oil, 3, I or II [I if BP <35°C (95°F); II if BP >35°C]

**Non-Bulk Package Marking:**

**Must be consistent with shipping description, either:**

Liquefied gas, toxic, flammable, n.o.s., (Hydrogen sulfide, Butane), **UN3160**;

or

Hydrocarbon gas mixture, liquefied, n.o.s., **UN1965**;

or

Hydrocarbons, liquid, n.o.s., **UN3295**;

or

Petroleum Crude Oil, **UN1267**

**Non-Bulk Package Labeling:**

**For UN3160:** Poison gas and Flammable gas

**For UN1965:** Flammable gas

**For UN3295:** Flammable liquid

**For UN1267:** Flammable liquid

**Bulk Package/Placard Marking:**

**For UN3160:** Poison gas/3160 and Flammable gas

**For UN1965:** Flammable gas/1965

**For UN3295:** Flammable/3295

**For UN1267:** Flammable/1267

**Packaging - References:**

**For UN3160:** None; 49 CFR 173.304; 173.314 & .315

**For UN1965:** 49 CFR: 173.306; 173.304; 173.314 & .315

**For UN3295:** 49 CFR 173.150; 173.201; 173.243 [ PG I ]

**For UN1267:** 49 CFR 173.150; 173.201; 173.243 [PG I]

-or- 49 CFR 173.150; 173.202; 173.242 [ PG II ] (Exceptions; Non-bulk; Bulk)

**Hazardous Substance:** See Section 15 for Regulatory Information

**Emergency Response Guide:** **UN3160** - 119; **UN1965** - 115; **UN3295** - 128; **UN1267** - 128

**Note: Replace X in shipping description with:**

**D** if Molar % H2S is from 8.8% to 14.8%

**C** if Molar % H2S is from 14.9% to 44.4%

**B** if Molar % H2S is from 44.5% to 100.0%

**Container(s) greater than 5 liters (liquids) or 5 kilograms (solids), shipped by water mode and ALL bulk shipments may require the shipping description to contain the "Marine Pollutant" notation (49 CFR 172.203(I)) and the container(s) to display the "Marine Pollutant Mark" (49 CFR 172.322).**

**The following alternate shipping description order may be used until January 1, 2013:** Proper Shipping name, Hazard Class or Division, (Subsidiary Hazard if any), UN or NA number, Packing Group

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Other shipping description elements may be required for DOT compliance.

### **International Maritime Dangerous Goods (IMDG)**

#### **Shipping Description:**

If vapor pressure is > 300 kPa (43.5 psia) at 50°C (122°F) and H2S is > 8.8 molar %, shipping description is: UN3160, Liquefied gas, toxic, flammable, n.o.s (Hydrogen Sulfide, Butane ), 2.3; 2.1

If vapor pressure is > 300 kPa (43.5 psia) at 50°C (122°F) and H2S is < 8.8 molar %, shipping description is: UN1965, Hydrocarbon gas mixture, liquefied, n.o.s., (Hydrogen Sulfide, Butane), 2.1;

If vapor pressure is <= 300 kPa (43.5 psia) at 50°C (122°F) and H2S is < 8.8 molar %, shipping description is: UN3295, Hydrocarbons, liquid, n.o.s., 3, I or II (46°C cc), Marine Pollutant [I if BP < 35°C (95°F); II if BP > 35°C]

If vapor pressure is < = 300 kPa (43.5 psia) at 50°C (122°F) and H2S is <8.8 molar %, shipping description is: **UN1267**, Petroleum crude oil, 3, I or II [I if BP <35°C (95°F); II if IBP >35°C] (-46°C)

#### **Labels:**

For **UN3160**: Toxic gas and Flammable gas

For **UN1965**: Flammable gas

For **UN3295**: Flammable liquid

For **UN1267**: Flammable liquid

#### **Placards/Marking (Bulk):**

For **UN3160**: Toxic gas/3160 and Flammable gas

For **UN1965**: Flammable gas/1965

For **UN3295**: Flammable/3295 and Marine Pollutant Mark

For **UN1267**: Flammable/1267

#### **Packaging - Non-Bulk:**

For **UN3160 & UN1965**: P200

For **UN3295**: P001

For **UN1267**: P001

#### **EMS:**

For **UN3160 & UN1965**: F-D, S-U

For **UN3295**: F-E, S-D

For **UN1267**: F-E, S-E

#### **Note:**

U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.

### **International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)**

#### **UN/ID #:**

**UN3160** - Forbidden

**UN1965** or **UN3295** or **UN 1267**

#### **Proper Shipping Name:**

For **UN1965**: Hydrocarbon gas mixture, liquefied, n.o.s. (Butane, Hydrogen Sulfide)

For **UN3295**: Hydrocarbons, liquid, n.o.s.

For **UN1267**: Petroleum Crude Oil

#### **Hazard Class/Division:**

For **UN1965**: 2.1

For **UN3295**: 3

For UN1267: 3

**Subsidiary risk:** None

**Packing Group:**

For UN1965: None

For UN3295: I or II [Determined by IATA 3.3.2]

For UN1267: I or II [Determined by IATA 3.3.2]

**Non-Bulk Package Marking:**

For UN1965: Hydrocarbon gas mixture, liquefied, n.o.s. (Butane, Hydrogen Sulfide), UN1965

For UN3295: Hydrocarbons, liquid, n.o.s., UN3295

For UN1267: Petroleum crude oil, UN1267

**Labels:**

For UN1965: Flammable gas, Cargo Aircraft Only

For UN3295: Flammable liquid

For UN1267: Flammable liquid

**ERG Code:**

For UN1965: 10L

For UN3295: 3H

For UN 1267: 3L

	LTD. QTY	Passenger Aircraft	Cargo Aircraft Only
Packaging Instruction #:	UN1965 – Forbidden UN3295 – Forbidden – [PG I] Y341 – [PG II] UN1267 – Forbidden – [PG I]	UN1965 – Forbidden UN3295 – 351 – [PG I] 353 – [PG II] UN1267 – 351 – [PG I]	UN1965 – 200 UN3295 – 361 – [PG I] 364 – [PG II] UN1267 – 361 – [PG I]
Max. Net. Qty. Per Package:	UN3295 – Forbidden – [PG I] 1L – [PG II] UN1267 – None (PG I)	UN3295 – 1L – [PG I] 5L – [PG II] UN1267 – 1L – [PG I]	UN1965 – 150 kg UN1267 – 30 L – [PG I] 60 L – [PG II] 0 UN3295 – 60L – [PG II]

## Section 15: Regulatory Information

### OSHA HAZARD COMMUNICATION STANDARD

This material has been evaluated and determined to be a “Hazardous Chemical” as defined in OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### CERCLA – Section 302 Extremely Hazardous Substances and TPQs (in pounds)

This material contains the following chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

Components	TPQ	EPCRA RQ
Hydrogen Sulfide	500 lb.	100 lb.

### CERCLA/SARA – Section 311/312 (Title III Hazard Categories)

Acute Health:	Yes
Chronic Health:	Yes
Fire Hazard:	Yes
Pressure Hazard:	No
Reactive Hazard:	No

### CERCLA/SARA – Section 313 and 40 CFR 372

This material contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372.

Components	Concentration	de minimis
Benzene	<5	0.1%
Ethyl Benzene	1-3	0.1%
Toluene	1-7	1.0%
Xylenes	1-8	1.0%
Toluene	1-7	1.0%
n-Hexane	2-4	1.0%

### **EPA (CERCLA) Reportable Quantity (in pounds)**

EPA's Petroleum Exclusion applies to this material – (CERCLA 101(14)).

### **California Proposition 65**

Warning: This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer, birth defects, or other reproductive harm, and which may be subject to the requirements of California Proposition 65 (CA Health and Safety Code Section 25249.5):

Components	Type of Toxicity
Toluene	Developmental Toxicant Female Reproductive Toxicant
Benzene	Cancer Developmental Toxicant Male Reproductive Toxicant
Ethyl Benzene	Cancer

### **Right to Know Information**

The recipient of this Safety Data Sheet should review applicable state and local regulations in order to determine whether additional "Right to Know" information is required (see <https://www.osha.gov/dcsp/osp/statestandards.html>). If applicable, the recipient may contact Texon L.P. (see Section 1) to obtain any such additional information.

### **International Hazard Classification**

#### **Canada:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the Safety Data Sheet contains all the information required by the Regulations.

#### **WHMIS Hazard Class:**

B2 – Flammable Liquids  
D1B  
D2A  
D2B

#### **National Chemical Inventories**

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA  
All components are either on the DSL, or are exempt from DSL listing requirements

**U.S. Export Control Classification Number:** EAR99

## **Section 16: Other Information**

Date of Issue:	Previous Issue Date:	SDS Number:	Status:
September 10, 2019	June 1, 2015	H4001.1	FINAL

#### **Revised Sections or Basis for Revision: GHS Updates**

Identification (Section 1)  
Hazards Identification (Section 2)  
Composition/ Information on Ingredients (Section 3)  
First Aid Measures (Section 4)  
Fire-Fighting Measures (Section 5)  
Accidental Release Measures (Section 6)

Handling and Storage (Section 7)  
Exposure Controls/Personal Protection (Section 8)  
Physical and Chemical Properties (Section 9)  
Stability and Reactivity (Section 10)  
Toxicological Information (Section 11)  
Ecological Information (Section 12)  
Disposal Considerations (Section 13)  
Transport Information (Section 14)  
Regulatory Information (Section 15)  
Other Information (Section 16)

**Guide to Abbreviations:**

ACGIH = American Conference of Governmental Industrial Hygienists; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; IARC = International Agency for Research on Cancer; INSHT = National Institute for Health and Safety at Work; IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIAH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

**Disclaimer of Expressed and Implied Warranties:**

The information presented in this Safety Data Sheet is based upon data reasonably believed to be accurate as of the date this Safety Data Sheet was prepared, and such information is specific only to the product described herein. If the product described herein is used as a component of any other product or process, this information may not be valid. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER REPRESENTATION, WARRANTY OR GUARANTEE IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE.

It is the recipient's obligation to evaluate this Safety Data Sheet and to investigate the product in order to make its own determination as to the suitability of the product for its particular purpose, to use this product safely and to comply with all applicable laws and regulations. Texon L.P. shall not be liable or responsible for any personal or property loss, damage, illness, death or injury arising out of or in any way connected to the handling, transportation, storage, disposal or use of the product, which is not the intended product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information contained in this Safety Data Sheet. Employers have a duty to tell employees and others who may be affected or be exposed to the product of any hazards described herein and of any precautions that should be taken. The recipient may contact Texon L.P. (see Section 1) to ensure that this Safety Data Sheet is the most current available. Alteration of this Safety Data Sheet by any party other than Texon L.P. is strictly prohibited.