

SAFETY DATA SHEET



Revision Date 06-Jan-2020

SDS Number 888100008854

Revision Number 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product Name Natural Gas Condensate (Sweet)

Synonyms Natural Gas Condensate, Condensate, Gas Well Condensate, Condensate, Lease Condensate, Natural Gasoline

Recommended Use Fuel
Uses advised against All others

Manufacturer
TESORO REFINING & MARKETING COMPANY LLC
A Subsidiary of Marathon Petroleum Corporation
539 South Main street
Findlay, OH 45840

SDS Information 1-419-421-3070 (M-F; 8-5 EST)

24 Hour CHEMTREC: 1-800-424-9300
Emergency (CCN# 13740)
Telephone

2. HAZARDS IDENTIFICATION

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification

Flammable liquids	Category 2
Acute dermal toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Highly flammable liquid and vapor
 Harmful in contact with skin
 Causes skin irritation
 May cause genetic defects
 May cause cancer
 Suspected of damaging fertility or the unborn child
 May cause drowsiness or dizziness by inhalation.
 Causes damage to organs through prolonged or repeated exposure
 Very toxic to aquatic life with long lasting effects
 May be fatal if swallowed and enters airways

**Appearance** Liquid**Physical State @20°C** Liquid**Odor** Hydrocarbons**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Do not breathe dust/fume/gas/mist/vapors/spray
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/or bond container and receiving equipment
 Use explosion-proof electrical/ ventilating / lighting / equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Call a POISON CENTER or doctor if you feel unwell
 If skin irritation occurs: Get medical advice/attention
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 Wash contaminated clothing before reuse
 If inhaled: Remove person to fresh air and keep comfortable for breathing
 If swallowed: Immediately call a poison center or doctor
 Do NOT induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Percent
Natural Gas Condensate	64741-47-5	0-100
Decane	124-18-5	30-40

Propane	74-98-6	0-30
Ethane	74-84-0	0-30
Xylene	1330-20-7	3-24
n-Pentane	109-66-0	0-23
Octane	111-65-9	10-20
Hexane	110-54-3	0-20
Nonane	111-84-2	10-12
n-Heptane	142-82-5	8-11
Toluene	108-88-3	0-10
Isopentane	78-78-4	0-2
Benzene	71-43-2	0-2
Ethylbenzene	100-41-4	0-1

4. FIRST AID MEASURES

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Remove from exposure, lie down. In case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt, seek medical advice. Never give anything by mouth to an unconscious person. Take off all contaminated clothing immediately and thoroughly wash material from skin. Immediate medical attention is required.
Inhalation	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes and clothing.

Most important symptoms and effects, both acute and delayed

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical. Carbon dioxide. Water spray. Alcohol resistant foam.
Small Fire	Any extinguisher suitable for Class B fires, dry chemical, CO ₂ , foam (AFFF/ATC), or water

spray can be used.

Large Fire	Water spray, fog or alcohol-resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient. Cool containers with flooding quantities of water until well after fire is out.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazardous combustion products	Smoke, CO, and other products of incomplete combustion.
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	Yes.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.
Further information	ALWAYS stay away from tanks engulfed in fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Do not direct water at source of leak or safety devices; icing may occur. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

NFPA **Health hazards** 2 **Flammability** 4 **Stability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other Information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protective equipment as required.

Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
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Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use
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grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	US ACGIH TLV	OSHA PEL
Propane 74-98-6	: See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³
Ethane 74-84-0	: See Appendix F: Minimal Oxygen Content	-
Xylene 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³
n-Pentane 109-66-0	TWA: 1000 ppm	TWA: 1000 ppm TWA: 2950 mg/m ³ (vacated) TWA: 600 ppm (vacated) TWA: 1800 mg/m ³ (vacated) STEL: 750 ppm (vacated) STEL: 2250 mg/m ³
Octane 111-65-9	TWA: 300 ppm	TWA: 500 ppm TWA: 2350 mg/m ³ (vacated) TWA: 300 ppm (vacated) TWA: 1450 mg/m ³ (vacated) STEL: 375 ppm (vacated) STEL: 1800 mg/m ³
Hexane 110-54-3	TWA: 50 ppm S*	TWA: 500 ppm TWA: 1800 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 180 mg/m ³
Nonane 111-84-2	TWA: 200 ppm	(vacated) TWA: 200 ppm (vacated) TWA: 1050 mg/m ³
n-Heptane 142-82-5	STEL: 500 ppm TWA: 400 ppm	TWA: 500 ppm TWA: 2000 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 1600 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 2000 mg/m ³
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m ³ Ceiling: 300 ppm
Isopentane	TWA: 1000 ppm	-

78-78-4		
Benzene 71-43-2	STEL: 2.5 ppm TWA: 0.5 ppm S*	TWA: 10 ppm applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028 TWA: 1 ppm (vacated) TWA: 10 ppm unless specified in 1910.1028 (vacated) STEL: 50 ppm 10 min unless specified in 1910.1028 (vacated) Ceiling: 25 ppm unless specified in 1910.1028 Ceiling: 25 ppm STEL: 5 ppm see 29 CFR 1910.1028
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³

S* - Potential exposure by cutaneous route

NOTE: Limits shown for guidance only. For additional information, OSHA's 1989 air contaminants standard exposure limits provided even though the limits were vacated in 1992. State, local or other agencies or advisory groups may have established more stringent limits. Follow applicable regulations.

Appropriate engineering controls

Engineering controls Ventilation systems
 Eyewash stations
 Showers.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand Protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.
Antistatic boots.

Respiratory protection Use a NIOSH approved respirator when there is a potential for airborne concentrations to exceed occupational exposure limits. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2, NIOSH Respirator Decision Logic, and the respirator manufacturer for additional guidance on respiratory protection selection. A Self-Contained Breathing Apparatus (SCBA) should be used for fire fighting.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State @20°C Liquid
Appearance Liquid
Odor Hydrocarbons
Color Straw color; ASTM Color: 0.5 - 2.25, ASTM D-1500
Odor threshold No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		
Melting point / freezing point	-35 °C / -31 °F	
Boiling range	38 - 297 °C °F	
Flash point	< 1 °C / 34 °F	
Evaporation rate	No data available	

Flammability (solid, gas)	Flammable gas may be released
Flammability Limit in Air %	
Upper flammability limit:	6.1-6.2
Lower flammability limit:	25
Vapor pressure	No data available
Vapor density	No data available
Relative density	0.773 - 0.7806 (water = 1), ASTM D-1657; API Gravity at 60/60 F: 49.8 - 51.6, ASTM D-1657 (calculated from SG)
Water solubility	No data available
Solubility in other solvents	No data available
Partition coefficient	1.8 to >8.0 (Log Kow), ASTM E 1147
Autoignition temperature	4 °C / 39 °F
Decomposition temperature	230 - 240
Kinematic viscosity	0.7 - 0.86 cSt
Dynamic viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Minimum Ignition Energy (mJ)	No data available
K_{st} (bar.m/s)	No data available
Softening point	No data available
VOC Content (%)	No data available
Density	No data available
Bulk density	Not applicable
Conductivity	No data available

10. STABILITY AND REACTIVITY

Reactivity	This product is non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	None under normal use conditions.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness by inhalation.
Eye contact	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components).
Skin contact	Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness
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and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	4,529.00 mg/kg
ATEmix (dermal)	1,203.00 mg/kg
ATEmix (inhalation-gas)	13,840,416.38
ATEmix (inhalation-dust/mist)	16.00 mg/l
ATEmix (inhalation-vapor)	22.48 mg/l

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Natural Gas Condensate 64741-47-5	= 14000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Decane 124-18-5	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 1369 ppm (Rat) 8 h
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h
Ethane 74-84-0	-	-	= 658 mg/L (Rat) 4 h
Xylene 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h
n-Pentane 109-66-0	> 2000 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	= 364 g/m ³ (Rat) 4 h
Octane 111-65-9	-	-	= 118 g/m ³ (Rat) 4 h = 25260 ppm (Rat) 4 h
Hexane 110-54-3	= 25 g/kg (Rat)	= 3000 mg/kg (Rabbit)	= 48000 ppm (Rat) 4 h
Nonane 111-84-2	-	-	= 3200 ppm (Rat) 4 h
n-Heptane 142-82-5	-	= 3000 mg/kg (Rabbit)	= 103 g/m ³ (Rat) 4 h
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Isopentane 78-78-4	-	-	= 280000 mg/m ³ (Rat) 4 h
Benzene 71-43-2	= 1800 mg/kg (Rat) = 810 mg/kg (Rat)	> 8200 mg/kg (Rabbit)	= 44.66 mg/L (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.4 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name

Propane

Studies in laboratory animals indicate exposure to extremely high levels of propane (1 to 10 vol.% in air) may cause cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

Xylene

Mixed xylenes can cause skin, eye, and respiratory irritation. Both short- and long-term repeated exposures to high enough levels in humans have resulted in a variety of adverse nervous system effects that include headache, mental confusion, narcosis, equilibrium, impaired short-term memory, dizziness and tremors. Studies in laboratory animals indicate that xylene can cause changes in the liver and harmful effects on the kidneys, lungs, heart, and nervous system as well as hearing loss. The relevance of these observations to humans is not clear at this time. In general, developmental studies in animals reported adverse fetal effects only at concentrations that caused maternal toxicity. The relevance of these observations to humans is unclear at this time. The available data from in vitro and in vivo studies suggest that xylenes are not mutagenic and do not produce chromosomal abnormalities. Furthermore, rats exposed up to 500 mg/kg bw and mice exposed up to 1000 mg/kg bw mixed xylenes for 103 weeks showed no treatment-related increases in any tumor type. IARC has determined that the carcinogenicity of xylenes is not classifiable (Group 3).

n-Pentane	Pentane may be fatal if it is swallowed and enters the airway. If inhaled, short-term (acute) overexposure can cause drowsiness, disorientation, other narcotic effects, and possibly death. Acute exposure to n-pentane by inhalation and ingestion results in low toxicity in animal studies. Exposure can cause irritation to eyes, skin (including dermatitis), and nose. Sensitization has not been reported. Exposure to high enough levels may also affect the central nervous system (CNS).
Octane	Octane may be fatal if it is swallowed and enters the airway. Octane affects the eyes, skin, respiratory system, and central nervous system. If inhaled, short-term overexposure can cause drowsiness, dizziness, and possibly death. Exposure to high enough levels of octane can cause irritation to eyes, nose, and skin (including dermatitis). Sensitization is not reported.
Nonane	Nonane may be fatal if it is swallowed and enters the airway. Nonane affects the eyes, skin, respiratory system, and central nervous system. If inhaled, short-term overexposure can cause drowsiness, dizziness, and possibly death. Exposure to high enough levels of nonane can cause irritation to eyes, nose, and skin (including dermatitis). Sensitization is not reported.
Benzene	Benzene exposure may occur through inhalation, ingestion, skin absorption or eye contact. Benzene exposure can cause skin, eye and respiratory irritation. The most characteristic systemic effect resulting from high enough intermediate and chronic benzene exposure is arrested development of blood cells. Studies have linked overexposure to benzene to many hematological effects including aplastic anemia, pancytopenia, leukopenia, and myelodysplastic syndrome. In vivo and in vitro data from both humans and animals show that benzene and/or its metabolites are genotoxic. Studies in animals provide supporting evidence for the carcinogenicity of inhaled benzene. Epidemiological studies have reported a causal relationship between occupational benzene exposures and acute myelogenous leukemia. Some studies suggest associations between benzene exposure and non-Hodgkin's lymphoma, multiple myeloma, and other cancers. Benzene has been classified as carcinogenic to humans (Group 1) by IARC, and the ECHA C&L Inventory states it may cause cancer (Carc. 1B). IARC concluded that benzene causes acute myeloid leukemia and a positive association has been observed for acute lymphatic leukemia, chronic lymphatic leukemia, non-hodgkin lymphoma, and multiple myeloma. Human studies suggest that female fertility and menstrual cycles were effected by benzene exposure; however, due to uncertainties in exposure and limited data the studies were considered inconclusive. Developmental effects have been observed in animals including persistent hematopoietic anomalies. It has been suggested that the reported benzene fetotoxicity of decreased weight and skeletal variants is a function of maternal toxicity.

Health hazard and classification information

Acute toxicity	Not classified
Skin Corrosion/Irritation	Classification based on data available for ingredients. Irritating to skin.
Serious eye damage/eye irritation	Not classified.
Sensitization	Not classified.
Germ cell mutagenicity	Classification based on data available for ingredients. Contains a known or suspected mutagen. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.
Carcinogenicity	Classification based on data available for ingredients. Contains a known or suspected carcinogen.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Xylene 1330-20-7	-	Group 3 Not Classifiable	-	-
Toluene 108-88-3	-	Group 3 Not Classifiable	-	-
Benzene 71-43-2	A1 Confirmed Human	Group 1 Carcinogenic to Humans	Known Carcinogen	X

	Carcinogen			
Ethylbenzene 100-41-4	A3	Group 2B	-	X

Reproductive toxicity Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Target Organ Systemic Toxicant - Single Exposure May cause drowsiness or dizziness by inhalation.

Target Organ Systemic Toxicant - Repeated Exposure Causes damage to organs through prolonged or repeated exposure.

Target organ effects liver, kidney, Respiratory system, Eyes, Skin, Central nervous system, blood, Peripheral Nervous System (PNS), bone marrow.

Aspiration Hazard May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Natural Gas Condensate 64741-47-5	56: 72 h Pseudokirchneriella subcapitata mg/L EC50	82: 96 h Cyprinodon variegatus mg/L LC50 static 119: 96 h Alburnus alburnus mg/L LC50 static	-	170: 24 h Daphnia magna mg/L EC50
Decane 124-18-5	0.043: 24 h Chlorella vulgaris mg/L EC50	-	-	0.029: 48 h Daphnia magna mg/L EC50
Xylene 1330-20-7	-	13.4: 96 h Pimephales promelas mg/L LC50 flow-through 780: 96 h Cyprinus carpio mg/L LC50 semi-static 780: 96 h Cyprinus carpio mg/L LC50 13.5 - 17.3: 96 h Oncorhynchus mykiss mg/L LC50 19: 96 h Lepomis macrochirus mg/L LC50 13.1 - 16.5: 96 h Lepomis macrochirus mg/L LC50 flow-through 23.53 - 29.97: 96 h Pimephales promelas mg/L LC50 static 30.26 - 40.75: 96 h Poecilia reticulata mg/L LC50 static 2.661 - 4.093: 96 h Oncorhynchus mykiss mg/L LC50 static 7.711 - 9.591: 96 h Lepomis macrochirus mg/L LC50 static	-	0.6: 48 h Gammarus lacustris mg/L LC50 3.82: 48 h water flea mg/L EC50
n-Pentane 109-66-0	-	9.99: 96 h Lepomis macrochirus mg/L LC50 9.87: 96 h Oncorhynchus mykiss mg/L LC50 11.59: 96 h Pimephales promelas mg/L LC50	-	9.74: 48 h Daphnia magna mg/L EC50
Octane 111-65-9	-	-	-	0.38: 48 h water flea mg/L EC50

Hexane 110-54-3	-	2.1 - 2.98: 96 h Pimephales promelas mg/L LC50 flow-through	-	1000: 24 h Daphnia magna mg/L EC50
n-Heptane 142-82-5	-	375.0: 96 h Cichlid fish mg/L LC50	-	10: 24 h Daphnia magna mg/L EC50
Toluene 108-88-3	12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 433: 96 h Pseudokirchneriella subcapitata mg/L EC50	12.6: 96 h Pimephales promelas mg/L LC50 static 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static	-	11.5: 48 h Daphnia magna mg/L EC50 5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static
Isopentane 78-78-4	-	-	-	2.3: 48 h Daphnia magna mg/L EC50
Benzene 71-43-2	29: 72 h Pseudokirchneriella subcapitata mg/L EC50	10.7 - 14.7: 96 h Pimephales promelas mg/L LC50 flow-through 5.3: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 22.49: 96 h Lepomis macrochirus mg/L LC50 static 28.6: 96 h Poecilia reticulata mg/L LC50 static 22330 - 41160: 96 h Pimephales promelas µg/L LC50 static 70000 - 142000: 96 h Lepomis macrochirus µg/L LC50 static	-	10: 48 h Daphnia magna mg/L EC50 8.76 - 15.6: 48 h Daphnia magna mg/L EC50 Static
Ethylbenzene 100-41-4	438: 96 h Pseudokirchneriella subcapitata mg/L EC50 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 9.6: 96 h Poecilia reticulata mg/L LC50 static 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static	-	1.8 - 2.4: 48 h Daphnia magna mg/L EC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Component Information

Chemical Name	Partition coefficient
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Decane 124-18-5	5.1
Propane 74-98-6	2.3
Ethane 74-84-0	<=2.8
Xylene 1330-20-7	2.77 - 3.15
n-Pentane 109-66-0	3.39
Octane 111-65-9	5.18
n-Heptane 142-82-5	4.66
Toluene 108-88-3	2.7
Isopentane 78-78-4	3.2 - 3.3
Benzene 71-43-2	2.1
Ethylbenzene 100-41-4	3.2

Mobility No information available.

Other adverse effects No information available.

Additional Ecological Information Release of this product should be prevented from contaminating soil and water and from entering drainage and sewer systems. U.S.A. regulations require reporting spills of this material that could reach any surface waters. The toll free number to the U.S. Coast Guard National Response Center is (800) 424-8802

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

US EPA Waste Number U019 U220 U239 D001.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Xylene 1330-20-7	Toxic Ignitable
n-Pentane 109-66-0	Toxic Ignitable
Octane 111-65-9	Toxic Ignitable
Hexane 110-54-3	Toxic Ignitable
n-Heptane 142-82-5	Toxic Ignitable
Toluene 108-88-3	Toxic Ignitable
Isopentane 78-78-4	Ignitable Toxic
Benzene	Toxic

71-43-2	Ignitable
Ethylbenzene 100-41-4	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no UN1267
Proper Shipping Name PETROLEUM CRUDE OIL
Hazard Class 3
Packing group II
Reportable Quantity (RQ) (Xylenes (mixed isomers): RQ (kg)= 45.40, Toluene: RQ (kg)= 454.00, Benzene: RQ (kg)= 4.54)
Special Provisions 357, T4, TP1, TP8, IB2, 144
Description UN1267, Petroleum crude oil, 3, II
Emergency Response Guide Number 128

TDG

UN/ID no UN1267
Proper Shipping Name PETROLEUM CRUDE OIL
Hazard Class 3
Packing group II
Description UN1267, Petroleum crude oil, 3, II

MEX

UN/ID no UN1267
Proper Shipping Name PETROLEUM CRUDE OIL
Hazard Class 3
Packing group II
Special Provisions 357
Description UN1267, Petroleum crude oil, 3, II

IATA

UN/ID no UN1267
Proper Shipping Name PETROLEUM CRUDE OIL
Hazard Class 3
Packing group II
ERG Code 3L
Description UN1267, Petroleum crude oil, 3, II

IMDG

UN/ID no UN1267
Proper Shipping Name PETROLEUM CRUDE OIL
Hazard Class 3
Packing group II
EmS No. F-E, S-E
Special Provisions 357
Description UN1267, Petroleum crude oil, 3, II, (1°C C.C.), Marine pollutant

15. REGULATORY INFORMATION

This product and/or its components are either listed on the TSCA inventory or are exempt from listing/notification.

International Inventories

TSCA	Listed
DSL/NDL	Listed
ENCS	Not Listed
IECSC	Listed
KECL	Listed
PICCS	Listed
AICS	Listed

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard
 Fire hazard
 Chronic Health Hazard

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Xylene 1330-20-7	100 lb	-	-	X
Toluene 108-88-3	1000 lb	X	X	X
Benzene 71-43-2	10 lb	X	X	X
Ethylbenzene 100-41-4	1000 lb	X	X	X

CERCLA

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil, fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Toluene - 108-88-3	Developmental
Benzene - 71-43-2	Carcinogen Developmental Male Reproductive

U.S. State Right-to-Know Regulations**US State Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Decane 124-18-5	X	-	X
Octane 111-65-9	X	X	X
Nonane 111-84-2	X	X	X
n-Heptane 142-82-5	X	X	X

Xylene 1330-20-7	-	-	X
Toluene 108-88-3	X	X	X
Hexane 110-54-3	X	X	X
Butane 106-97-8	X	X	X
n-Pentane 109-66-0	X	X	X
Isopentane 78-78-4	X	X	X
Benzene 71-43-2	X	X	X

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Revision Date 06-Jan-2020

Revision Note No information available.

Disclaimer

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End of Safety Data Sheet