


1. Identification

Product identifier Powder River Basin Crude Oil (Sweet)
Other means of identification None.
Recommended use Oil, lubricant, or fuel source.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer/Supplier Devon Energy Production Company, L.P.
 333 W. Sheridan Avenue
 Oklahoma City, OK 73102-5010
Telephone (405) 235-3611
Emergency CHEMTREC 24 Hour Emergency
 Within the USA (800) 424-9300
 Outside the USA +1 703-527-3887

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 1
Health hazards	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 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2 (nervous system, central nervous system, liver, kidney)
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement	Extremely flammable liquid and vapor. Causes skin irritation. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause damage to organs (nervous system, central nervous system, liver, kidney) through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.	

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response

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

Storage

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

Disposal

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

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Decane	124-18-5	50-82
Octane	111-65-9	1-18
Nonane	111-84-2	1-12
Xylene	1330-20-7	1-2
n-Hexane	110-54-3	0.001-2.5
Pentane	109-66-0	0.001-1
Toluene	108-88-3	0.001-6
Benzene	71-43-2	0.001-2
Ethylbenzene	100-41-4	0.001-2

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Skin irritation. May cause redness and pain. Direct contact with eyes may cause temporary irritation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Narcosis. Edema. Jaundice. May cause damage to organs (nervous system, central nervous system, liver, kidney) through prolonged or repeated exposure. Swallowing of the liquid, or vomiting as a result, may result in aspiration into the lungs. Aspiration may cause pulmonary edema and pneumonitis. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Extremely flammable liquid and vapor.
6. Accidental release measures	
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m ³
		100 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m ³
		500 ppm
Octane (CAS 111-65-9)	PEL	2350 mg/m ³
		500 ppm
Xylene (CAS 1330-20-7)	PEL	435 mg/m ³
		100 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Benzene (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	50 ppm
Nonane (CAS 111-84-2)	TWA	200 ppm
Octane (CAS 111-65-9)	TWA	300 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	1 ppm
	TWA	0.1 ppm
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3
	TWA	125 ppm 435 mg/m3
n-Hexane (CAS 110-54-3)	TWA	100 ppm 180 mg/m3
	TWA	50 ppm 1050 mg/m3
Nonane (CAS 111-84-2)	TWA	200 ppm 1800 mg/m3
	Ceiling	385 ppm
Octane (CAS 111-65-9)	TWA	350 mg/m3
	TWA	75 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3
	TWA	150 ppm 375 mg/m3
Xylene (CAS 1330-20-7)	STEL	100 ppm 655 mg/m3
	TWA	150 ppm 435 mg/m3 100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis		*
	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
Xylene (CAS 1330-20-7)	0.02 mg/l	Toluene	Blood	*
	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Benzene (CAS 71-43-2)

Can be absorbed through the skin.

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

Toluene (CAS 108-88-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)

Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

Benzene (CAS 71-43-2)

Can be absorbed through the skin.

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide easy access to water supply or an emergency shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Skin protection

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear NIOSH approved respirator appropriate for airborne exposure at the point of use.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Thick liquid.

Color

Green to black. Dark yellow to brown.

Odor

Petroleum.

Odor threshold

Not available.

pH

Not applicable.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

86 - 1000.04 °F (30 - 537.8 °C)

Flash point

-40.4 - 149.3 °F (-40.2 - 65.2 °C) Cleveland Closed Cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

0.4 %

Flammability limit - upper (%)

15 %

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

6.4 at 100°F (37.8°C)

Relative density	0.831 (H2O=1)
Relative density temperature	60 °F (15.56 °C)
Solubility(ies)	
Solubility (water)	0.1 - 1 % (Slightly soluble in water).
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	500 °F (260 °C)
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition. Thermal decomposition of this product can generate carbon monoxide and carbon dioxide.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics	Skin irritation. May cause redness and pain. Direct contact with eyes may cause temporary irritation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Narcosis. Edema. Jaundice. May cause damage to organs (nervous system, central nervous system, liver, kidney) through prolonged or repeated exposure. Swallowing or vomiting of the liquid may result in aspiration into the lungs. Aspiration may cause pulmonary edema and pneumonitis. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure. Prolonged exposure may cause chronic effects.
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Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
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Components	Species	Test Results
Benzene (CAS 71-43-2)		
Acute		
<i>Inhalation</i>		
LC50	Rat	10000 mg/l, 7 Hours
Decane (CAS 124-18-5)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	72.3 mg/l, 2 Hours
Ethylbenzene (CAS 100-41-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	15400 mg/kg

Components	Species	Test Results
<i>Inhalation</i> LC50	Rat	17.4 mg/l, 4 hours
<i>Oral</i> LD50	Rat	3500 - 4700 mg/kg
n-Hexane (CAS 110-54-3) Acute <i>Oral</i> LD50	Rat	28710 mg/kg
Toluene (CAS 108-88-3) Acute <i>Dermal</i> LD50	Rabbit	14.1 ml/kg
<i>Inhalation</i> LC50	Rat	49000 mg/m ³ , 4 Hours
<i>Oral</i> LD50	Rat	5580 mg/kg
Xylene (CAS 1330-20-7) Acute <i>Oral</i> LD50	Rat	3523 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	May cause genetic defects.	
Carcinogenicity	May cause cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Benzene (CAS 71-43-2)	1 Carcinogenic to humans.	
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.	
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.	
NTP Report on Carcinogens		
Benzene (CAS 71-43-2)	Known To Be Human Carcinogen.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Benzene (CAS 71-43-2)	Cancer	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	May cause damage to organs (nervous system, central nervous system, liver, kidney) through prolonged or repeated exposure.	
Aspiration hazard	May be fatal if swallowed and enters airways.	
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Benzene (CAS 71-43-2) Aquatic Crustacea	EC50 Water flea (<i>Daphnia magna</i>)	8.76 - 15.6 mg/l, 48 Hours

Components		Species	Test Results
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	5 mg/l, 96 Hours
Decane (CAS 124-18-5)			
Aquatic			
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus)	> 500 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	1.81 - 2.38 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4.2 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	EC50	Ceriodaphnia dubia	3.6 mg/l, 7 days
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours
Octane (CAS 111-65-9)			
Aquatic			
Crustacea	LC50	Daphnia magna	0.38 mg/l, 48 hours
Toluene (CAS 108-88-3)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	11.5 mg/l, 48 hours
Fish	LC50	Oncorhynchus kisutch	5.5 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	NOEC	Ceriodaphnia dubia	0.74 mg/l, 7 days
Fish	NOEC	Oncorhynchus kisutch	1.4 mg/l, 40 days
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.6 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Ethylbenzene (CAS 100-41-4)	3.15
Xylene (CAS 1330-20-7)	3.2

Mobility in soil The product is insoluble or slightly soluble in water.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
D018: Waste Benzene
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1267
UN proper shipping name	Petroleum crude oil
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	I
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Any re-classification or offer for shipment under alternate classification must comply with 49 CFR 173.41 and 173.21
Special provisions	144, T11, TP1, TP8

IATA

UN number	UN1267
UN proper shipping name	Petroleum crude oil
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	I
Environmental hazards	Yes
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1267
UN proper shipping name	PETROLEUM CRUDE OIL
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	I
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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

General information This product is being carried under the scope of MARPOL Annex I.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Nonane (CAS 111-84-2) 1.0 % One-Time Export Notification only.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Benzene (CAS 71-43-2) Cancer
Central nervous system
Blood
Aspiration
Skin
Eye
respiratory tract irritation
Flammability

CERCLA Hazardous Substance List (40 CFR 302.4)

Benzene (CAS 71-43-2)	LISTED
Ethylbenzene (CAS 100-41-4)	LISTED
n-Hexane (CAS 110-54-3)	LISTED
Nonane (CAS 111-84-2)	LISTED
Octane (CAS 111-65-9)	LISTED
Toluene (CAS 108-88-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Xylene	1330-20-7	1-2
n-Hexane	110-54-3	0.001-2.5
Benzene	71-43-2	0.001-.2
Ethylbenzene	100-41-4	0.001-.2

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Benzene (CAS 71-43-2)
 Ethylbenzene (CAS 100-41-4)
 n-Hexane (CAS 110-54-3)
 Toluene (CAS 108-88-3)
 Xylene (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

US state regulations**US. Massachusetts RTK - Substance List**

Benzene (CAS 71-43-2)
 Ethylbenzene (CAS 100-41-4)
 n-Hexane (CAS 110-54-3)
 Nonane (CAS 111-84-2)
 Octane (CAS 111-65-9)
 Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

Benzene (CAS 71-43-2)
 Decane (CAS 124-18-5)
 Ethylbenzene (CAS 100-41-4)
 n-Hexane (CAS 110-54-3)
 Nonane (CAS 111-84-2)
 Octane (CAS 111-65-9)
 Toluene (CAS 108-88-3)
 Xylene (CAS 1330-20-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Benzene (CAS 71-43-2)

Decane (CAS 124-18-5)
Ethylbenzene (CAS 100-41-4)
n-Hexane (CAS 110-54-3)
Nonane (CAS 111-84-2)
Octane (CAS 111-65-9)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US. Rhode Island RTK

Benzene (CAS 71-43-2)
Ethylbenzene (CAS 100-41-4)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)
Ethylbenzene (CAS 100-41-4)
Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 27-March-2014

Revision date 08-July-2016

Version # 05

NFPA ratings



Disclaimer

Devon US Operations cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.