SAFETY DATA SHEET

1. Identification

Product identifier Crude (Sour)

Other means of identification

CAS number 8002-05-9 Recommended use Not available. **Recommended restrictions** None known.

Manufacturer/Importer/Supplier/Distributor information

Devon Energy Production Company, L.P. Manufacturer/Supplier

333 West Sheridan

Oklahoma City, OK 73102-5015

Telephone (405) 235-3611

CHEMTREC 24 Hour Emergency **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 Serious eye damage/eye irritation Category 2

> Germ cell mutagenicity Category 1B Carcinogenicity Category 1B Reproductive toxicity Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated Category 2 (Blood, Liver, Spleen, Thymus,

Category 2

exposure

Kidney, Central nervous system)

Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute Category 2

hazard

long-term hazard

Not classified. **OSHA** defined hazards

Label elements



Hazardous to the aquatic environment,

Signal word Danger

Hazard statement Extremely flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (Blood, Liver. Spleen, Thymus, Kidney, Central nervous system) through prolonged or repeated exposure.

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

SDS US Crude (Sour)

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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/vapors. 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.

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Response

Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

In case of fire: Use appropriate media to extinguish. Collect spillage.

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

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

Substances

Chemical name	Common name and synonyms	CAS number	%
Crude (Sour)		8002-05-9	100
Contains Chemical name		CAS number	%
n-Hexane		110-54-3	< 5
Xylenes (mixed isomers)		1330-20-7	< 2
Toluene		108-88-3	< 0.6
Benzene		71-43-2	< 0.5
Hydrogen sulfide		7783-06-4	≥ 0.001

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.

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical Skin contact

attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

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

Ingestion

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Edema. Jaundice. 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.

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5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing

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.

Specific methods

General fire hazards

Use standard firefighting procedures and consider the hazards of other involved materials.

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/vapors. 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. The product is immiscible with water and will spread on the water surface. Prevent product from entering drains.

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.

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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/vapors. Avoid contact with eyes. 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 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 Contains	Type	Value	
Benzene (CAS 71-43-2)	STEL	5 ppm	
	TWA	1 ppm	
US. OSHA Table Z-1 Limits for Air	•	•	
Material	Туре	Value	
Crude (Sour) (CAS 8002-05-9)	PEL	2000 mg/m3	
		500 ppm	
Contains	Туре	Value	
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3	
		500 ppm	
Xylenes (mixed isomers) (CAS 1330-20-7)	PEL	435 mg/m3	
		100 ppm	
US. OSHA Table Z-2 (29 CFR 1910	.1000)		
Contains	Туре	Value	
Toluene (CAS 108-88-3)	Ceiling	300 ppm	
	TWA	200 ppm	
Benzene (CAS 71-43-2)	Ceiling	25 ppm	
	TWA	10 ppm	
Hydrogen sulfide (CAS 7783-06-4)	Ceiling	20 ppm	
US. ACGIH Threshold Limit Value	S		
Contains	Туре	Value	
n-Hexane (CAS 110-54-3)	TWA	50 ppm	

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US. ACGIH Threshold Limit Value			
Contains	Туре	Value	
Xylenes (mixed isomers) (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
Toluene (CAS 108-88-3)	TWA	20 ppm	
Benzene (CAS 71-43-2)	STEL	2.5 ppm	
	TWA	0.5 ppm	
Hydrogen sulfide (CAS 7783-06-4)	STEL	5 ppm	
	TWA	1 ppm	
US. NIOSH: Pocket Guide to Cher	mical Hazards		
Material	Туре	Value	
Crude (Sour) (CAS 8002-05-9)	Ceiling	1800 mg/m3	
	TWA	350 mg/m3	
Contains	Туре	Value	
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3	
		50 ppm	
Xylenes (mixed isomers) (CAS 1330-20-7)	STEL	655 mg/m3	
		150 ppm	
	TWA	435 mg/m3	
		100 ppm	
Toluene (CAS 108-88-3)	STEL	560 mg/m3	
		150 ppm	
	TWA	375 mg/m3	
		100 ppm	
Benzene (CAS 71-43-2)	STEL	1 ppm	
	TWA	0.1 ppm	
Hydrogen sulfide (CAS 7783-06-4)	Ceiling	15 mg/m3	
		10 ppm	

Biological limit values

Value	Determinant	Specimen	Sampling Time
500 μg/g	t,t-Muconic acid	Creatinine in urine	*
re Indices			
Value	Determinant	Specimen	Sampling Time
0.5 mg/l	2,5-Hexanedio ne, without hydrolysis	Urine	*
1.5 g/g	Methylhippuric acids	Creatinine in urine	*
0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
0.03 mg/l	Toluene	Urine	*
0.02 mg/l	Toluene	Blood	*
25 μg/g	S-Phenylmerca pturic acid	Creatinine in urine	*
	500 μg/g re Indices Value 0.5 mg/l 1.5 g/g 0.3 mg/g 0.03 mg/l 0.02 mg/l	500 μg/g t,t-Muconic acid re Indices Value Determinant 0.5 mg/l 2,5-Hexanedio ne, without hydrolysis 1.5 g/g Methylhippuric acids 0.3 mg/g ο-Cresol, with hydrolysis 0.03 mg/l Toluene 0.02 mg/l Toluene 25 μg/g S-Phenylmerca	500 μg/g t,t-Muconic acid Creatinine in urine Te Indices Value Determinant 2,5-Hexanedio ne, without hydrolysis 1.5 g/g Methylhippuric acids 0.3 mg/g 0-Cresol, with Urine 0.03 mg/l Toluene Urine Urine Creatinine in urine Urine Creatinine in Urine O.02 mg/l Toluene S-Phenylmerca Creatinine in

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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 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 eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Chemical respirator with organic vapor cartridge and full facepiece. Eye/face protection

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Skin protection

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

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece. Wear appropriate thermal protective clothing, when necessary. Thermal hazards

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. Liquid. **Form** Brown. Color

Hydrocarbon. Rotten eggs. (Hydrogen sulfide odor). Odor

Odor threshold Not available. Not available.

-99 °F (-72.78 °C) estimated Melting point/freezing point Initial boiling point and boiling 85 - 500 °F (29.4 - 260 °C)

range

32.0 - 200.0 °F (0 - 93.3 °C) Flash point

Evaporation rate Not available. Not applicable. Flammability (solid, gas) Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

Not available.

Not available. Explosive limit - lower (%) Not available. Explosive limit - upper (%)

10 - 50 psia Vapor pressure 100 °F (37.78 °C) Vapor pressure temp. Not available. Vapor density

0.65 - 1Relative density

60 °F (15.56 °C) Relative density temperature

Crude (Sour) SDS US Solubility(ies)

Solubility (water) Insoluble

Insoluble (<0.1)

Partition coefficient (n-octanol/water)

1.8 - 8

Auto-ignition temperature

446 - 491 °F (230 - 255 °C)

Decomposition temperature

Not available.

Viscosity

Not available.

Other information

Not explosive. **Explosive properties** Not oxidizing. Oxidizing properties

10. Stability and reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport. Reactivity

Material is stable under normal conditions. **Chemical stability** Possibility of hazardous Hazardous polymerization does not occur.

reactions

Conditions to avoid

Keep away from heat, hot surfaces, 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

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be

harmful.

Skin contact No adverse effects due to skin contact are expected.

Eye contact Causes serious eye 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 Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision. Edema. Jaundice.

Information on toxicological effects

May be fatal if swallowed and enters airways. Acute toxicity

Toxicological data

Contains	Species	Test Results
Xylenes (mixed isomers) (CAS	S 1330-20-7)	
<u>Acute</u>		
Oral		
LD50	Rat	3523 mg/kg
Toluene (CAS 108-88-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	12200 mg/kg
Inhalation		
Vapor		
LC50	Rat	28.1 mg/l, 4 Hours
Benzene (CAS 71-43-2)		
<u>Acute</u>		
Oral		
LD50	Rat	930 mg/kg

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Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye

irritation

Causes serious eve 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.

Crude (Sour) (CAS 8002-05-9)

Toluene (CAS 108-88-3)

Xylenes (mixed isomers) (CAS 1330-20-7)

3 Not classifiable as to carcinogenicity to humans.
3 Not classifiable as to carcinogenicity to humans.
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 1910.1001-1053)

Benzene (CAS 71-43-2) Cancer

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity -

single exposure

Contains

May cause drowsiness and dizziness.

Specific target organ toxicity -

repeated exposure

May cause damage to organs (Blood, Liver, Spleen, Thymus, Kidney, Central nervous system)

Test Results

through prolonged or repeated exposure.

Species

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful. May cause damage to organs through prolonged or

repeated exposure.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

		GP 00.00		
Xylenes (mixed isome	rs) (CAS 1330-20-7	')		
Aquatic				
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.6 mg/l, 96 hours	
Toluene (CAS 108-88	-3)			
Aquatic				
Acute				
Crustacea	EC50	Daphnia magna	11.5 mg/l, 48 hours	
Fish	LC50	Oncorhynchus kisutch	5.5 mg/l, 96 hours	
Chronic				
Crustacea	NOEC	Ceriodaphnia dubia	0.74 mg/l, 7 days	
Fish	NOEC	Oncorhynchus kisutch	1.4 mg/l, 40 days	

Persistence and degradability

No data is available on the degradability of this substance.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Crude (Sour) (CAS 8002-05-9) 1.8 - 8

Mobility in soil The product is insoluble in water.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the

material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with

local/regional/national/international regulations.

Crude (Sour) SDS US

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.

US RCRA Hazardous Waste U List: Reference

Benzene (CAS 71-43-2) U019 Hydrogen sulfide (CAS 7783-06-4) U135 Toluene (CAS 108-88-3) U220 Xylenes (mixed isomers) (CAS 1330-20-7) U239

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).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

UN1267 **UN** number

UN proper shipping name

Petroleum crude oil

Transport hazard class(es)

3 Class Subsidiary risk 3 Label(s) Packing group ı **Environmental hazards**

> Marine pollutant Yes

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions 144, 357, T11, TP1, TP8

150 Packaging exceptions Packaging non bulk 201 Packaging bulk 243

IATA

UN number UN1267

UN proper shipping name

Transport hazard class(es)

Petroleum crude oil

3 Class Subsidiary risk Packing group I **Environmental hazards** Yes **ERG Code** 3L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN1267 **UN** number

PETROLEUM CRUDE OIL **UN proper shipping name**

Transport hazard class(es) 3 Class Subsidiary risk Packing group

Environmental hazards

Yes Marine pollutant **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

Not established.

the IBC Code

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Benzene (CAS 71-43-2)
Crude (Sour) (CAS 8002-05-9)
Hydrogen sulfide (CAS 7783-06-4)
n-Hexane (CAS 110-54-3)
Listed.
Toluene (CAS 108-88-3)
Listed.
Xylenes (mixed isomers) (CAS 1330-20-7)
Listed.

SARA 304 Emergency release notification

HYDROGEN SULFIDE (CAS 7783-06-4) 100 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Benzene (CAS 71-43-2)

Cancer

Central nervous system

Blood Aspiration Skin Eye

respiratory tract irritation

Flammability

Toxic Substances Control Thi

This substance is on the TSCA 8(b) inventory and is designated "active".

Act (TSCA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Hydrogen sulfide	7783-06-4	100	500		

SARA 311/312 Hazardous

Yes

chemical

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)

Serious eye damage or eye irritation

Germ cell mutagenicity Carcinogenicity Reproductive toxicity

Specific target organ toxicity (single or repeated exposure)

Aspiration hazard

Hazard not otherwise classified (HNOC)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
Crude (Sour)	8002-05-9	100	
Benzene	71-43-2	< 0.5	
n-Hexane	110-54-3	< 5	
Xylenes (mixed isomers)	1330-20-7	< 2	

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Benzene (CAS 71-43-2) n-Hexane (CAS 110-54-3) Toluene (CAS 108-88-3)

Xylenes (mixed isomers) (CAS 1330-20-7)

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

Hydrogen sulfide (CAS 7783-06-4)

Safe Drinking Water Act

Contains component(s) regulated under the Safe Drinking Water Act.

(SDWA)

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

Crude (Sour) SDS US

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3)

594

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Hydrogen sulfide (CAS 7783-06-4)

High priority

US state regulations

US. Massachusetts RTK - Substance List

Benzene (CAS 71-43-2)

Crude (Sour) (CAS 8002-05-9)

Hydrogen sulfide (CAS 7783-06-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Xylenes (mixed isomers) (CAS 1330-20-7)

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

Benzene (CAS 71-43-2)

Crude (Sour) (CAS 8002-05-9)

Hydrogen sulfide (CAS 7783-06-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Xylenes (mixed isomers) (CAS 1330-20-7)

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

Benzene (CAS 71-43-2)

Crude (Sour) (CAS 8002-05-9)

Hydrogen sulfide (CAS 7783-06-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Xylenes (mixed isomers) (CAS 1330-20-7)

US. Rhode Island RTK

Benzene (CAS 71-43-2)

Crude (Sour) (CAS 8002-05-9)

Hydrogen sulfide (CAS 7783-06-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Xylenes (mixed isomers) (CAS 1330-20-7)

California Proposition 65



WARNING: This product can expose you to chemicals including Benzene, which is known to the State of

California to cause cancer and birth defects or other reproductive harm. For more information go

to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2) Listed: February 27, 1987

California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997 Toluene (CAS 108-88-3) Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997 n-Hexane (CAS 110-54-3) Listed: December 15, 2017

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Benzene (CAS 71-43-2)

Crude (Sour) (CAS 8002-05-9)

Hydrogen sulfide (CAS 7783-06-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Xylenes (mixed isomers) (CAS 1330-20-7)

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

Crude (Sour) SDS US Country(s) or region On inventory (yes/no)* Europe European Inventory of Existing Commercial Chemical Substances (EINECS) European List of Notified Chemical Substances (ELINCS) Europe No Japan Inventory of Existing and New Chemical Substances (ENCS) No Korea Existing Chemicals List (ECL) Yes

> Philippine Inventory of Chemicals and Chemical Substances (PICCS)

Inventory name

New Zealand Inventory

Taiwan Taiwan Chemical Substance Inventory (TCSI) Yes Toxic Substances Control Act (TSCA) Inventory United States & Puerto Rico Yes

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

Issue date 16-October-2015 **Revision date** 22-January-2019

Version #

Health: 3* **HMIS®** ratings

Flammability: 4 Physical hazard: 0

NFPA ratings

New Zealand

Philippines



Disclaimer

Devon Energy 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.

Crude (Sour) SDS US

Yes

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).