



Heavy Crude Oil - Flammable

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015.

Date of issue: 12/17/2015

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SECTION 1: Identification

1.1. Product identifier

Product name : Heavy Crude Oil - Flammable
Product code : Not available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Petroleum distillates.

1.3. Details of the supplier of the safety data sheet

NGL Supply Co., Ltd.
550, 435 – 4th Avenue SW
Calgary, Alberta T2P 3A8 - Canada

1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300
CANUTEC (613) 996-6666

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US and GHS-CA classification

Flammable Liquid 2
Acute Toxicity 3 (Inhalation)
Germ Cell Mutagenicity 1B
Carcinogenicity 1A
Reproductive Toxicity 2
Specific Target Organ Toxicity - Repeat Exposure 1
Aspiration Toxicity 1

2.2. Label elements

GHS-US and GHS-CA labelling

Hazard pictograms (GHS-US and GHS-CA) :



Signal word (GHS-US and GHS-CA) :

Danger

Hazard statements (GHS-US and GHS-CA) :

Highly flammable liquid and vapour. Toxic if inhaled. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.

Precautionary statements (GHS-US and GHS-CA) :

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. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical advice/attention. 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 inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS US and GHS-CA)

Not applicable.

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Petroleum	(CAS No) 8002-05-9	100
Benzene	(CAS No) 71-43-2	0.1 - 1
Toluene	(CAS No) 108-88-3	0.1 - 1
Xylenes (o-, m-, p- isomers)	(CAS No) 1330-20-7	0.1 - 1
Ethylbenzene	(CAS No) 100-41-4	0.1 - 1
Hydrogen sulfide	(CAS No) 7783-06-4	0.1 - 1

* Due to the nature of the sampling process, different crude samples may contain varying amounts of hazardous chemicals.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical advice/attention.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause respiratory tract irritation. May contain small amounts of hydrogen sulphide (H₂S) which can cause irritation of mucous membranes, headaches, dizziness, and nausea at low concentrations.
- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Powder. Water spray. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Water spray may be ineffective.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Highly flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

- Protection during firefighting : Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges.

6.2. Methods and material for containment and cleaning up

- For containment : Eliminate sources of ignition. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

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6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Benzene is subject to the standard 29 CFR 1910.1028 which may contain specific requirements for handling including protective equipment, regulated areas, monitoring and medical surveillance. The employer should review the standard and assure compliance with applicable requirements.
Hygiene measures	: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	: Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store in a cool place.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Petroleum (8002-05-9)		
ACGIH	Not applicable	
OSHA	Not applicable	
Benzene (71-43-2)		
ACGIH	ACGIH TWA (ppm)	0.5 ppm
ACGIH	ACGIH STEL (ppm)	2.5 ppm
OSHA	OSHA PEL (TWA) (ppm)	10 ppm 1 ppm
OSHA	OSHA PEL (STEL) (ppm)	5 ppm (see 29 CFR 1910.1028)
OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm
IDLH	US IDLH (ppm)	500 ppm
NIOSH	NIOSH REL (TWA) (ppm)	0.1 ppm
NIOSH	NIOSH REL (STEL) (ppm)	1 ppm
Toluene (108-88-3)		
ACGIH	ACGIH TWA (ppm)	20 ppm
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm
IDLH	US IDLH (ppm)	500 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	375 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	560 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	150 ppm
Xylenes (o-, m-, p- isomers) (1330-20-7)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³

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Xylenes (o-, m-, p- isomers) (1330-20-7)		
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

Ethylbenzene (100-41-4)		
ACGIH	ACGIH TWA (ppm)	20 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
IDLH	US IDLH (ppm)	800 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m ³)	435 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	545 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	125 ppm

Hydrogen sulfide (7783-06-4)		
ACGIH	ACGIH TWA (ppm)	1 ppm
ACGIH	ACGIH STEL (ppm)	5 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
IDLH	US IDLH (ppm)	100 ppm
NIOSH	NIOSH REL (ceiling) (mg/m ³)	15 mg/m ³
NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm

8.2. Exposure controls

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear suitable gloves.
Eye protection	: Safety glasses or goggles are recommended when using product.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available.
Colour	: Dark brown, Green-Black
Odour	: Petroleum odor
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: -7 - 65 °C (19-149 °F)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Flammable
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: 408 hPa @ 37.7 °C (100 °F)
Relative density	: 0.8 - 1 g/cm @ 15 °C (59 °F)

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Relative vapour density at 20 °C	: > 1 (Air = 1)
Solubility	: Negligible
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Sparks. Heat. Incompatible materials.

10.5. Incompatible materials

Oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Toxic if inhaled.

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LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	>0.5 but ≤2.0 mg/l/4h
Petroleum (8002-05-9)	
LD50 oral rat	> 4300 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
Benzene (71-43-2)	
LD50 oral rat	810 mg/kg
LD50 dermal rabbit	> 8200 mg/kg
LC50 inhalation rat	44.66 mg/l/4h
Toluene (108-88-3)	
LD50 oral rat	2600 mg/kg
LD50 dermal rabbit	12000 mg/kg
LC50 inhalation rat	12.5 mg/l/4h
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	> 4350 mg/kg
LC50 inhalation rat	29.08 mg/l/4h
Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15400 mg/kg
LC50 inhalation rat	17.2 mg/l/4h

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Hydrogen sulfide (7783-06-4)	
LC50 inhalation rat	0.99 mg/l/1h

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer.

Petroleum (8002-05-9)	
IARC group	3 - Not classifiable

Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 2 - Known Human Carcinogens
In OSHA Specifically Regulated Carcinogen list	Yes

Toluene (108-88-3)	
IARC group	3 - Not classifiable

Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC group	3 - Not classifiable

Ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity

Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: May cause respiratory tract irritation. May contain small amounts of hydrogen sulphide (H ₂ S) which can cause irritation of mucous membranes, headaches, dizziness, and nausea at low concentrations.
Symptoms/injuries after skin contact	: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
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12.2. Persistence and degradability

Heavy Crude Oil - Flammable	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Heavy Crude Oil - Flammable	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Effect on the global warming	: No known ecological damage caused by this product.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.
Additional information	: Handle empty containers with care because residual vapours are flammable.

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SECTION 14: Transport information

In accordance with DOT/TDG

UN-No.(DOT/TDG) : UN1267
Proper Shipping Name (DOT/TDG) : Petroleum crude oil
Class (DOT/TDG) : 3
Hazard labels (DOT/TDG) :



Packing group (DOT/TDG) : I

Additional information

Other information : No supplementary information available.
Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Benzene (71-43-2)

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	0.1 %
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Toluene (108-88-3)

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	1.0 %
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Xylenes (o-, m-, p- isomers) (1330-20-7)

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	1.0 %
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Ethylbenzene (100-41-4)

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	0.1 %
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Hydrogen sulfide (7783-06-4)

Listed on the United States SARA Section 302

Subject to reporting requirements of United States SARA Section 313

SARA Section 302 Threshold Planning Quantity (TPQ)	500
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SARA Section 313 - Emission Reporting	1.0 %
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Petroleum (8002-05-9)

Listed on the Canadian DSL (Domestic Substances List)

Benzene (71-43-2)

Listed on the Canadian DSL (Domestic Substances List)

Toluene (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

Xylenes (o-, m-, p- isomers) (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List)

Ethylbenzene (100-41-4)

Listed on the Canadian DSL (Domestic Substances List)

Hydrogen sulfide (7783-06-4)

Listed on the Canadian DSL (Domestic Substances List)

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15.2. US State regulations

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State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm
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SECTION 16: Other information

Date of issue : 12/17/2015
Revision date : 12/17/2015
Other information : None.

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