




### 1.0 Identification

<b>GHS product identifier:</b> produced water, sweet	<b>Version #:</b> 03
<b>Synonyms:</b>	<b>Issue date:</b> 11/01/2019
	<b>Supersedes version date:</b> previous to 07/31/2016
<b>CAS #:</b> mixture	
<b>Recommended use:</b> Product produced at Ovintiv well sites. Includes liquids, except for natural gas condensates and crude oil generated from a produced well.	
<b>Recommended restrictions:</b> Use in accordance with this SDS.	
<b>Manufacturer:</b> Ovintiv USA Inc., 370 17 <sup>th</sup> Street, Suite 1700, Denver, CO 80202	
<b>Emergency phone #:</b> 800-262-8200 or 911	<b>Email:</b> myEHS@ovintiv.com

### 2.0 Hazard Identification

#### 2.1 GHS Classification and Label Elements

Signal Word: <b>Danger</b>			
Type of Hazard		Category	Hazard Symbol
Physical hazards	Flammable liquids	3	
Health hazards	Skin corrosion/irritation Reproductive toxicity	3 2	
Environmental hazards	Hazardous to aquatic environment, long-term hazard	2	

#### 2.2 Hazard Statement

- Causes mild skin irritation.
- Toxic to aquatic life with long-lasting effects.
- Suspected of damaging a fetus.

#### 2.3 Precautionary Statement

- Prevention

- Keep away from heat/sparks/open flames/hot surfaces.
- Do not handle until all safety precautions have been read and understood.
- Obtain special instructions before use.
- Use personal protective equipment to prevent contact, as determined by assessing hazards and likely routes of exposure.
- Avoid release to the environment.
- Response
  - In case of fire, use alcohol-resistant foam, carbon dioxide, dry powder, or water fog for extinction.
  - If exposed or concerned, get medical advice/attention.
  - Collect spillage if safe to do so.
- Storage
  - Store in a well-ventilated place.
  - Keep cool.
  - Store locked up.
- Disposal
  - Dispose of contents/container in accordance with local/regional/national/international regulations.
- Specific hazard
  - Direct contact with eyes may cause temporary irritation.
  - Prolonged contact may cause dryness of the skin.
- Hazards not otherwise classified
  - None

### 3.0 Composition/Information on Ingredients

Components	CAS #	Percent (Weight)
Water	7732-18-5	>78
Octane	111-65-9	<10
Decane	124-18-5	<5
Heptane	142-82-5	<5
n-Hexane	110-54-3	<2.5

## 4.0 First Aid Measures

### 4.1 First Aid Procedures

- Inhalation: Move to fresh air. Get medical attention if discomfort develops or persists.
- Skin contact: Remove contaminated clothing. Wash with soap and water. For rashes, wounds, or other skin disorders, seek medical attention and bring along this SDS.
- Eye contact: Remove contact lenses and open eyelids wide apart. Immediately flush with plenty of water for up to 15 minutes. Get medical attention if irritation develops or persists.
- Ingestion: Rinse mouth. Never give anything by mouth to an unconscious person. Do not induce vomiting.

### 4.2 Most Important Symptoms (Effects Acute and Delayed)

- May cause redness and pain.
- May cause eye irritation on direct contact.

### 4.3 Notes to Physician

- Treat symptomatically. The effects may be delayed.

### 4.4 General Advice

- Get medical attention if any discomfort develops.

## 5.0 Fire-Fighting Measures

### 5.1 Flammable Properties

- This product is flammable.
- Heating may generate vapors which may form explosive vapor/air mixtures.
- See Sections 9.0 Physical and Chemical Properties and 10.0 Stability and Reactivity for physical/chemical and stability/reactive properties.
- NFPA: health 1, flammability 2, instability: 0.

#### Extinguishing Media

Suitable	Do Not Use
<ul style="list-style-type: none"> <li>• Water spray</li> <li>• Fog</li> <li>• Carbon dioxide (CO<sub>2</sub>)</li> <li>• Dry chemical</li> <li>• Alcohol-resistant foam</li> </ul>	<ul style="list-style-type: none"> <li>• Water jet, which will spread the fire.</li> <li>• Using foam and water on the same surface; water destroys foam.</li> </ul>

## Protection of Fire-Fighters

Specific Hazards Arising from Product	Protective Equipment and Precautions
<ul style="list-style-type: none"> <li>Heating may generate vapors, which may form explosive vapor/air mixtures.</li> </ul>	<ul style="list-style-type: none"> <li>Self-contained breathing apparatus (SCBA) and full protective clothing must be worn when fighting fire in an enclosed or inadequately ventilated area.</li> </ul>

**5.2 Fire-Fighting Equipment/Instructions**

- Use standard firefighting procedures and consider the hazards of other involved materials.
- Move containers of product, if possible, from fire area if you can do it without risk.
- Use water spray to cool unopened containers.
- Cool containers with flooding quantities of water until well after fire is out.

**6.0 Accidental Release Measures**

- Personal precautions:
  - Avoid prolonged and repeated contact.
  - Wear suitable protective clothing, gloves, and eye/face protection.
- Environmental precautions:
  - Avoid discharge into drains, water courses, or onto the ground.
- Methods of containment:
  - Do not allow to enter drains, sewers, or watercourses.
- Methods for cleaning up:
  - Small spills: Absorb spillage with suitable absorbent material.
  - Large spills: Use a non-combustible material like vermiculite, sand, or earth to soak up the product and place into a container for later disposal.
  - For waste disposal, see Section 13 Disposal Considerations of this SDS.

**7.0 Handling and Storage****7.1 Handling**

- Avoid contact with eyes and prolonged or repeated contact with skin.
- Pregnant women should not work with the product, if there is any risk of exposure.
- Keep away from heat, spark, open flames, and other sources of ignition.

- Wash hands after handling and before eating.
- Observe good hygiene practices.
- HMIS: health: 1, flammability: 2, physical hazards: 0.

## 7.2 Storage and Incompatibilities

- Follow rules for flammable liquids.
- Keep away from heat, sparks, and open flame.
- Keep in a cool, well-ventilated place.
- Keep away from food, drink, and animal feeding areas and materials.
- Store away from incompatible materials: strong acids and strong oxidizing agents (see Section 10.0 Stability and Reactivity).
- Store locked up.

## 8.0 Exposure Controls/Personal Protection

Occupational Exposure Limits

Component	Limit Type	OSHA PEL <sup>1</sup>	ACGIH TLV	NIOSH REL
Heptane CAS# 142-82-5	STEL TWA	None 500 ppm	500 ppm 400 ppm	440 ppm 85 ppm
n-Hexane CAS# 110-54-3	STEL TWA	None 500 ppm	None 50 ppm	None 50 ppm
Octane CAS# 95-47-6	STEL TWA	375 ppm 500 ppm	None 300 ppm	385 ppm (C) 75 ppm

### TABLE NOTES:

(1) Limits contained in 29 CFR 1910.1000 Z-2 may apply.

STEL=short-term exposure limit, PEL=permissible exposure limit, REL=recommended exposure limit, TLV=threshold limit value, TWA=time-weighted average, C=ceiling, ppm=parts per million.

## 8.1 Recommended Monitoring Procedures

- Follow standard monitoring procedures per established OSHA or NIOSH methods.

## 8.2 Engineering Controls

- Provide adequate ventilation and minimize the risk of inhalation of vapors and oil mist.
- Provide easy access to water supply and eye wash facilities.
- Use explosion-proof equipment.

### 8.3 Personal Protective Equipment

- Eye face protection: Wear chemical-resistant goggles/face shield.
- Skin protection: Wear appropriate chemical-resistant clothing to prevent any possibility of skin contact.
- Respiratory protection: An approved respirator must be worn 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). Respirators do not protect against potentially explosive environments. Industrial hygienists should monitor personal exposure to determine the need for a respirator.

### 8.4 General Hygiene

- When using do not eat, drink, or smoke.
- Wash hands after handling.
- Launder contaminated clothing before reuse.
- Working clothes should be kept separately from other clothes.
- Handle in accordance with good hygiene and safety practices.
- Observe medical surveillance requirements.

## 9.0 Physical and Chemical Properties

Physical state	Liquid
Form	Liquid
Color	Colorless brown
Odor	Hydrocarbon
pH	4.3-6.8
Melting point/freezing point	-26.1 to 0°C (-15 to 32°F)
Initial boiling point	100°C (212°F)
Flash point	28.9-98.9 °C (84 to 210°F)
Lower explosive limit (by volume)	Not available
Upper explosive limit (by volume)	Not available
Vapor pressure	0.1-1.8 psi (Reid vapor pressure at 100°F)
Vapor density	Not available
Relative density	1.01-1.08
Solubility	Soluble
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available

## 10.0 Stability and Reactivity

- Reactivity: Not available.
- Chemical stability: Material is stable under normal conditions.
- Possibility of hazardous reactions: Hazardous polymerization does not occur.
- Conditions to avoid: Excessive heat. Contact with incompatible materials.
- Incompatible materials: Water reactive materials. Strong oxidizing agents.
- Hazardous decomposition products: None known.

## 11.0 Toxicological Information

### 11.1 Routes of Exposure

- Absorption
- Eye contact
- Inhalation of vapor

### 11.2 Toxicological Effects

- Occupational exposures to the substance or mixture may cause adverse effects.
- Acute effects
  - Skin irritation.
  - Ingestion may cause irritation or malaise.
- Chronic effects
  - Can cause damage to the liver, kidney, and central nervous system.
  - Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema, chapping, and oil acne.

### 11.3 Skin Corrosion/Irritation

- Irritating to skin.

### 11.4 Eye Irritation

- Not classified.

### 11.5 Sensitization

- Not a skin sensitizer.

### 11.6 Local Effects

- May cause eye irritation.

- May produce skin irritation or contact dermatitis.

#### **11.7 Mutagenicity**

- Not classified.

#### **11.8 Carcinogenicity**

- Not classified.

#### **11.9 Reproductive Toxicity**

- Suspected of damaging fertility.

#### **11.10 Symptoms**

- May cause redness and pain.
- May cause eye irritation on direct contact.

#### **11.11 Epidemiology**

- Not available.

#### **11.12 Absorption Hazard**

- Not available.

### **12.0 Ecological Information**

- Ecotoxicity: Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
- Environmental effects: Toxic to aquatic life with long lasting effects.
- Persistence and degradability: Expected to be inherently biodegradable.
- Bioaccumulative potential: Has the potential to bioaccumulate.
- Mobility in soil: This product mainly contains water, which is highly mobile in soil. The organic compounds have varying mobility in soil.
- Water solubility: This product is water soluble.

### **13.0 Disposal Considerations**

This product is exempt as an EPA RCRA hazardous waste according to 40 CFR 261. It is the responsibility of the user to comply with federal, state, and local regulations for disposal.



## 14.0 Transportation Information

- US DOT: Not regulated as dangerous goods.
- IATA: Not regulated as a hazardous substance.
- IMDG: Not regulated as a hazardous substance.

## 15.0 Regulatory Information

### U.S.

<b>OSHA</b>	This product is not a specifically regulated substance (1910.1001-1050)
<b>TSCA</b>	This product is not listed in the TSCA chemical inventory.
<b>SARA Section 304</b>	Not applicable.
<b>SARA Section 311/312</b>	Not applicable.
<b>SARA Section 313</b>	Not applicable.

### International Inventories

Country 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

## 16.0 Other Information, Including Date of Preparation of Last Version

Issue date: 11/01/2019

Supersedes version date: 07/31/2016

Version #: 03

References: IARC Monographs. Overall Evaluation of Carcinogenicity (Volumes 1-102) IUCLID. Hazardous Substances Data Bank.

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.