



SAFETY



HSEQ library

TOOLBOX INFORMATION

NATURAL GAS CONDENSATE

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HSEQ Direct is a digital communication, registration and training platform with a focus on Health, Safety, the Environment and Quality.

Designed specifically for the workplace!

Associated IOGP Life-Saving Rules



HSEQ DIRECT  safer
healthier
workplace



WHAT IS IT?

Natural gas condensate is a by-product of gas extraction and gas production. It contains Benzene, H₂S and Mercury, amongst other substances. It is a highly flammable liquid and vapor, explosive, toxic and can cause cancer. So it is harmful to both health and the environment.



HAZARDS (1/2)

Natural gas condensate vapor has an anaesthetizing and asphyxiating effect from a certain concentration. **This may result in confusion and the inability to make the right decisions and eventually loss of consciousness and death.** Ask your company about the Lowest Explosive Limit (LEL). **Maximum caution and care is required!**



HAZARDS (2/2)

Inhalation of vapors: drowsiness, dizziness, stupor, severely irritating, cancer, death

Skin contact: irritation, permanent injury

Eye contact: severely irritation, permanent injury

Swallowing: severely irritation, permanent injury



PREVENTION (1/2)

- do not to eat or drink anywhere during work
- work downwind
- avoid open flames or sparks
- ensure adequate ventilation
- use the correct equipment, ask your company for further information about this
- ask your company if the presence of a fire watch and/or manhole guard is required



PREVENTION (2/2)

A statement should be present at your workplace to ensure that it is free of gas, liquid and pressure. Ask your company about this.

Before and during work, the presence and concentration of relevant dangerous substances and the percentage of Lower Explosion Limit should be measured and monitored.

Ask your company about the regulations and their specific requirements.



PROTECTION

Use the correct Personal Protection Equipment (PPE). Use them in the correct manner and keep them in good condition.

Ask your company about this.



IN CASE OF... (1/3)

INHALATION OF VAPOURS

- immediately seek fresh air, resuscitate if necessary

SKIN CONTACT

- take off contaminated clothing and wash the skin with plenty of water and soap

EYE CONTACT

- rinse out with plenty of water or with eye fluid, remove contact lenses if applicable



IN CASE OF... (2/3)

SWALLOWING

- rinse mouth out with water or have it rinsed out, DO NOT induce vomiting

SEVERE EXPOSURE

- immediately notify the person responsible for first aid in your company!

SPIILLS

- report all spills directly to your HSE Manager; never touch a spill and never attempt to rectify the spill without the appropriate authorization



IN CASE OF... (3/3)

FIRE OR EXPLOSION

- raise alarm
- report the incident to your HSE Manager
- go to the muster point and await further instructions

Ask your company beforehand for details of their particular policies and procedures.

IMPORTANT INFORMATION

In small concentrations, Natural gas condensate vapor has a narcotic effect. So immediately leave the workplace if the gas alarm sounds.

- 1 A statement should be present at your workplace to ensure that it is **free of gas and pressure**, ask your company about this.
- 2 **Work downwind** and ensure the workplace is **properly ventilated**.
- 3 Avoid **open flames** or **sparks**.
- 4 **Take off your PPE** during your lunch break.
- 5 **Use the correct PPE**, ask your company for further details about this.

QUESTIONS? MORE INFORMATION? UNSAFE WORKING CONDITIONS?

Your HSE Manager is there to help answer any questions and ensure a safe working environment for all.

QUESTION 1

What is natural gas condensate?

- A. Natural gas condensate is a by-product of oil and gas extraction; and oil and gas production. It primarily contains benzene.
- B. Natural gas condensate is a by-product of gas extraction and gas production; it generally contains a mixture of hydrocarbons such as methane, pentane and benzene.
- C. Natural gas condensate is a liquid by-product of gas extraction and gas production; it is a mixture of nitrogen and benzene.

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QUESTION 2

When is natural gas condensate flammable and explosive?

- A. Natural gas condensate is only flammable and explosive if the precipitated condensate evaporates.
- B. Natural gas condensate is always flammable and explosive.
- C. Only natural gas condensate derived from sour gas locations is flammable and explosive.

ANSWER 2

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QUESTION 3

What are the dangerous characteristics of natural gas condensate?

- A. Explosive, can cause cancer, highly flammable, harmful to the environment, toxic, asphyxiating, anaesthetizing.
- B. Explosive, carcinogenic, slightly flammable, oxygen displacing, asphyxiating, damage to the installation and the pipes, lethal.
- C. Explosive, highly corrosive, flammable, poisonous, oxygen displacing, asphyxiating, anaesthetizing.

ANSWER 3

What are the dangerous characteristics of natural gas condensate?

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C. Explosive, highly corrosive, flammable, poisonous, oxygen displacing, asphyxiating, anaesthetizing.

QUESTION 4

What should you do before and during work?

- A. You must ensure there is no ventilation in order to prevent hazardous substances from ending up in the environment.
- B. You must verify if the Permit to Work states the name of the person who ensures that the parts of the installation, pipes, drums or tanks on which you are going to work are free of pressure and liquid.
- C. You should measure the presence of relevant hazardous substances (for example benzene, hydrogen sulfide, mercury). Additionally you should measure the concentration of these substances and the percentage of LEL.

ANSWER 4

What should you do before and during work?

- A. You must ensure there is no ventilation in order to prevent hazardous substances from ending up in the environment.
- B. You must verify if the Permit to Work states the name of the person who ensures that the parts of the installation, pipes, drums or tanks on which you are going to work are free of pressure and liquid.
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QUESTION 5

What do you do when someone is severely exposed to natural gas condensate?

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A. You immediately get the affected person into fresh air and resuscitate them.

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B. You immediately notify a medic.

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C. You raise the alarm and immediately report the incident to your HSE Manager.

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ANSWER 5

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C. You raise the alarm and immediately report the incident to your HSE Manager.