



HEALTH



HSEQ library

TOOLBOX INFORMATION

CAUSTIC SODA

June 2021

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? (1/2)

Caustic Soda or Sodium Hydroxide is a highly aggressive and corrosive substance that absorbs moisture from the environment.



WHAT IS IT? (2/2)

Its main uses are in the manufacture of pulp and paper, alumina, soap and detergents, petroleum products and chemicals.

Inhalation of vapors or spray mist may produce severe irritation of the respiratory tract. **Anyone coming into contact with Caustic Soda may suffer serious burns.** Caustic Soda is harmful to your health and the environment.

Maximum caution and care is called for!



HAZARDS

- extremely aggressive and corrosive
- reacts violently with acids and chlorine
- generates large amounts of heat when dissolved in water (risk of forming corrosive mists)



PREVENTION

- familiarize yourself with the workplace situation prior to commencing any tasks
- discuss the safety risks in detail; ask your HSE Manager about this
- take necessary precautions as prescribed by your company
- know what to do in the event of an emergency; ask your HSE Manager about this
- work upwind and ensure that the workplace is properly ventilated



PROTECTION

Discuss with your HSE Manager the appropriate Personal Protection Equipment that should be used.

Ensure that you follow all the correct procedures and maintain all items in good condition.



IN CASE OF... (1/2)

- **inhalation (vapors or spray mist):** remove the affected person to fresh air; if necessary, administer artificial respiration until professional help arrives
- **eye contact:** immediately rinse with water and Diphoterine (if available in the workplace)
- **skin contact:** immediately remove all contaminated clothing (do not pull away) and rinse with water and Diphoterine (if available in the workplace) as soon as possible



IN CASE OF... (2/2)

- **if swallowed:** rinse mouth with water and spit out rinse; never induce vomiting!
- **spills:** do not clean up spills yourself, notify your HSE Manager who will ensure that the spill is cleaned up expertly and safely

IMPORTANT INFORMATION

- 1 Caustic Soda is **highly aggressive** and **corrosive**.
- 2 **Work upwind** and ensure the workplace is **properly ventilated**.
- 3 **Never attempt** to clear up spills yourself, instead notify your HSEQ Manager.
- 4 Know what to do in the event of an **emergency**; ask your HSEQ Manager about this.
- 5 Use the **correct PPE**; ask your HSEQ Manager 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

Name three properties of Caustic Soda.

.....

A. Extremely aggressive and corrosive; reacts violently with chlorine and nitrogen; explosive.

.....

B. Combustible; reacts very violently with chlorine and asbestos; corrosive.

.....

C. Reacts violently with chlorine and acids; extremely aggressive and corrosive; non-combustible.

.....



ANSWER 1

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B. Combustible; reacts very violently with chlorine and asbestos; corrosive.

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C. Reacts violently with chlorine and acids; extremely aggressive and corrosive; non-combustible.

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QUESTION 2

What are the main uses of Caustic Soda?

- A. Its main uses are in the manufacture of pulp and paper, alumina, soap and detergents, petroleum products and chemicals.
- B. For inspections and for making pipelines inert (and keeping them that way).
- C. For inspections and for the desulfurization of your tools.

ANSWER 2

What are the main uses of Caustic Soda?

A. Its main uses are in the manufacture of pulp and paper, alumina, soap and detergents, petroleum products and chemicals.

B. For inspections and for making pipelines inert (and keeping them that way).

C. For inspections and for the desulfurization of your tools.

QUESTION 3

In what situations can you come into contact with Caustic Soda?

.....

A. If there are any leaks, during inspections, or during maintenance work.

.....

B. When sampling and if working upwind.

.....

C. If there are any leaks, and when cleaning or changing glycol filters.

.....



ANSWER 3

In what situations can you come into contact with Caustic Soda?

A. If there are any leaks, during inspections, or during maintenance work.

B. When sampling and if working upwind.

C. If there are any leaks, and when cleaning or changing glycol filters.



QUESTION 4

What additional Personal Protection Equipment (PPE) should you wear?

- A. Ask your HSE Manager about this. Ensure that you follow all the correct procedures for PPE use and maintain all items in good condition.
- B. Respiratory protection, chemical-resistant overalls/coveralls, safety boots (PU), chemical-resistant gloves (Viton), goggles/safety visor.
- C. Respiratory protection, chemical-resistant overalls/coveralls, chemical-resistant gloves (butyl rubber or nitrile rubber), goggles/safety visor.

ANSWER 4

What additional Personal Protection Equipment (PPE) should you wear?

A. Ask your HSE Manager about this. Ensure that you follow all the correct procedures for PPE use and maintain all items in good condition.

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C. Respiratory protection, chemical-resistant overalls/coveralls, chemical-resistant gloves (butyl rubber or nitrile rubber), goggles/safety visor.

QUESTION 5

What should you do if someone has inhaled the vapor or mist created by dissolving Caustic Soda in water?

- A. Remove the affected person to fresh air, call a doctor, administer mouth-to-mouth resuscitation until professional help arrives.

 - B. Notify your HSE Manager immediately, instruct a colleague to call a doctor, remove the affected person to fresh air. If necessary, administer artificial respiration until professional help arrives.

 - C. Call a doctor immediately, remove the affected person to fresh air. If necessary, administer mouth-to-mouth resuscitation until professional help arrives.

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ANSWER 5

What should you do if someone has inhaled the vapor or mist created by dissolving Caustic Soda in water?

A. Remove the affected person to fresh air, call a doctor, administer mouth-to-mouth resuscitation until professional help arrives.

B. Notify your HSE Manager immediately, instruct a colleague to call a doctor, remove the affected person to fresh air. If necessary, administer artificial respiration until professional help arrives.

C. Call a doctor immediately, remove the affected person to fresh air. If necessary, administer mouth-to-mouth resuscitation until professional help arrives.
