

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision Date: 01/25/2025

Version: 1.0

**SECTION 1: IDENTIFICATION** 

<u>Product Identifier</u> <u>Product Form:</u> Mixture

Product Name: Caustic Soda 50% NSF Grade

Product Code: AFCO 8895 Intended Use of the Product

Use of the Substance/Mixture: NSF grade alkaline product for pH adjustment. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company AFCO

550 Development Avenue Chambersburg, PA 17201

T: 800-345-1329 www.afcocare.com

**Emergency Telephone Number** 

Emergency Number : 1-800-424-9300 (CHEMTREC)

# **SECTION 2: HAZARDS IDENTIFICATION**

# Classification of the Substance or Mixture

# Classification (GHS-US)

Met. Corr. 1 H290 Skin Corr. 1A H314 Eye Dam. 1 H318 Aquatic Acute 3 H402

Label Elements
GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage H402 - Harmful to aquatic life

**Precautionary Statements (GHS-US)**: P234 - Keep only in original container.

P260 - Do not breathe vapors, mist, spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment (see section 4).

P363 - Wash contaminated clothing before reuse. P390 - Absorb spillage to prevent material damage.

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P405 - Store locked up.

P406 - Store in corrosive resistant container with a resistant inner liner.

P501 - Dispose of contents/container according to local, regional, national, territorial,

provincial, and international regulations.

## **Other Hazards**

**Other Hazards Not Contributing to the Classification:** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Corrosive vapors.

**Unknown Acute Toxicity (GHS-US)** Not available.

# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### Substances

#### Mixture

| Name             | Product identifier | % (w/w) | Classification (GHS-US) |
|------------------|--------------------|---------|-------------------------|
| Water            | (CAS No) 7732-18-5 | 50-70   | Not classified          |
| Sodium hydroxide | (CAS No) 1310-73-2 | 30-50   | Met. Corr. 1, H290      |
|                  |                    |         | Skin Corr. 1A, H314     |
|                  |                    |         | Eye Dam. 1, H318        |
|                  |                    |         | Aquatic Acute 3, H402   |

Full text of H-phrases: see section 16.

# **SECTION 4: FIRST AID MEASURES**

# **Description of First Aid Measures**

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### Most Important Symptoms and Effects Both Acute and Delayed

General: Corrosive. Causes burns. Causes serious eye damage.

Inhalation: None under normal and intended conditions of product use.

Skin Contact: Contact may cause immediate severe irritation progressing quickly to chemical burns.

Eye Contact: Causes serious eye damage.

**Ingestion:** Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Not available.

#### Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

# **SECTION 5: FIRE-FIGHTING MEASURES**

# **Extinguishing Media**

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

# **Special Hazards Arising From the Substance or Mixture**

Fire Hazard: Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Contact with metals may evolve flammable hydrogen gas.

#### **Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. **Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

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**Hazardous Combustion Products:** Sodium oxides. Carbon oxides (CO, CO<sub>2</sub>). Corrosive vapors. **Other information:** Do not allow run-off from fire fighting to enter drains or water courses.

**Reference to Other Sections** 

Refer to section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### **Personal Precautions, Protective Equipment and Emergency Procedures**

General Measures: Do NOT breathe (vapors, mist, spray). Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

**For Emergency Personnel** 

**Protective Equipment:** Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

**Environmental Precautions** 

Prevent entry to sewers and public waters. Avoid release to the environment.

### Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Cautiously neutralize spilled liquid. Absorb and/or contain spill with inert material, then place in suitable container.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill. Cautiously neutralize spilled liquid. Absorb spillage to prevent material damage.

### **Reference to Other Sections**

See heading 8, Exposure Controls and Personal Protection.

## **SECTION 7: HANDLING AND STORAGE**

#### **Precautions for Safe Handling**

**Additional Hazards When Processed:** When heated to decomposition, emits toxic fumes. May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do no eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

#### **Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a well-ventilated place. Keep container tightly closed. Keep/Store away from heat, direct sunlight, extremely high or low temperatures, and incompatible materials.

**Incompatible Materials:** Strong acids and strong oxidizers. Metals.

Specific End Use(s): NSF grade alkaline product for pH adjustment. For professional use only.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control Parameters**

| Sodium hydroxide (1310-73-2) |                             |                      |  |
|------------------------------|-----------------------------|----------------------|--|
| Mexico                       | OEL Ceiling (mg/m³)         | 2 mg/m³              |  |
| USA ACGIH                    | ACGIH Ceiling (mg/m³)       | 2 mg/m³              |  |
| USA OSHA                     | OSHA PEL (TWA) (mg/m³)      | 2 mg/m³              |  |
| USA NIOSH                    | NIOSH REL (ceiling) (mg/m³) | 2 mg/m³              |  |
| USA IDLH                     | US IDLH (mg/m³)             | 10 mg/m <sup>3</sup> |  |
| Ontario                      | OEL Ceiling (mg/m³)         | 2 mg/m <sup>3</sup>  |  |
| Québec                       | PLAFOND (mg/m³)             | 2 mg/m³              |  |

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#### **Exposure Controls**

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Alarm detectors should be used when toxic gases may be released. If user operations generate fumes, vapor, spray, or mist use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protective Equipment: Protective clothing. Protective goggles. Gloves. Face shield.









Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosionproof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: None needed under normal and intended conditions of product use.

**Thermal Hazard Protection:** Wear suitable protective clothing. **Other Information:** When using, do not eat, drink or smoke.

#### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### **Information on Basic Physical and Chemical Properties**

Physical State : Liquid

**Appearance** : Clear, colorless

Odor : None

Odor Threshold : Not available
pH : 14 (as is)
Relative Evaporation Rate (butylacetate=1) : Not available
Melting Point : Not available
Freezing Point : Not available
Boiling Point : 107.2°C (224.96°F)

Flash Point : None
Auto-ignition Temperature : None

Decomposition Temperature: Not availableFlammability (solid, gas): Not availableLower Flammable Limit: Not availableUpper Flammable Limit: Not availableVapor Pressure: Not availableRelative Vapor Density at 20°C: Not available

Specific Gravity: 1.53Solubility: Complete.Partition coefficient: n-octanol/water: Not availableViscosity: Not available

Explosion Data – Sensitivity to Mechanical Impact : Not expected to present an explosion hazard due to mechanical impact. Explosion Data – Sensitivity to Static Discharge : Not expected to present an explosion hazard due to static discharge.

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# **SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** Contact with metals may evolve flammable hydrogen gas. **Chemical Stability:** Stable at standard temperature and pressure.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.

**Incompatible Materials:** Strong acids. Strong oxidizers. Metals.

Hazardous Decomposition Products: Carbon oxides (CO, CO<sub>2</sub>). Thermal decomposition generates: Corrosive vapors.

# SECTION 11: TOXICOLOGICAL INFORMATION

### **Information on Toxicological Effects - Product**

Acute Toxicity: Not classified. LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

**Teratogenicity:** Not available. **Carcinogenicity:** Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

**Potential Adverse Human Health Effects and Symptoms:** Harmful if inhaled. Harmful if swallowed. **Symptoms/Injuries After Inhalation:** None under normal and intended conditions of product use.

Symptoms/Injuries After Skin Contact: Contact may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

| Water (7732-18-5) |              |
|-------------------|--------------|
| LD50 Oral Rat     | >90000 mg/kg |

## **SECTION 12: ECOLOGICAL INFORMATION**

#### Toxicity

Ecology - General: Harmful to aquatic life.

| Sodium hydroxide (1310-73-2) |         |
|------------------------------|---------|
| LC50 Fish 1                  | 40 mg/l |

Persistence and Degradability: Not available.

### **Bioaccumulative Potential**

| Caustic Soda 50% NSF Grade (AFCO 8895) |                 |  |
|--|-----------------|--|
| Bioaccumulative Potential              | Not established |  |

Mobility in Soil Not available.

**Other Adverse Effects** 

Other Information: Avoid release to the environment.

# **SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology – Waste Materials: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

#### **SECTION 14: TRANSPORT INFORMATION**

# 14.1 In Accordance with DOT

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)

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Hazard Class : 8

Identification Number : UN3266

Label Codes : 8
Packing Group : III
ERG Number : 154



14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)

Hazard Class : 8

Identification Number: UN3266Packing Group: IIILabel Codes: 8EmS-No. (Fire): F-AEmS-No. (Spillage): S-B



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)

Packing Group : III
Identification Number : UN3266
Hazard Class : 8

Hazard Class : 8 Label Codes : 8 ERG Code (IATA) : 8L

14.4 In Accordance with TDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)

Packing Group : III
Hazard Class : 8
Identification Number : UN3266

Label Codes : 8



# **SECTION 15: REGULATORY INFORMATION**

## **US Federal Regulations**

| Caustic Soda 50% NSF Grade (AFCO 8895) |                                  |
|--|----------------------------------|
| SARA Section 311/312 Hazard Classes    | Immediate (acute) health hazard. |

# Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

# Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

# **US State Regulations**

# Sodium hydroxide (1310-73-2)

- U.S. California SCAQMD Toxic Air Contaminants Non-Cancer Acute
- U.S. California Toxic Air Contaminant List (AB 1807, AB 2728)
- U.S. New Jersey Discharge Prevention List of Hazardous Substances
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. New Jersey Special Health Hazards Substances List
- U.S. New York Occupational Exposure Limits TWAs
- U.S. New York Reporting of Releases Part 597 List of Hazardous Substances
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Texas Effects Screening Levels Long Term
- U.S. Texas Effects Screening Levels Short Term

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## **Canadian Regulations**

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision date** : 01/25/2025

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA

Hazard Communication Standard 29 CFR 1910.1200.

#### **GHS Full Text Phrases:**

| Aquatic Acute 3  | quatic Acute 3 Hazardous to the aquatic environment - Acute Hazard Category 3. |  |
|--|--|--|
| Eye Dam. 1 Serious eye damage/eye irritation Category 1. |  |  |
| Met. Corr. 1   | Corrosive to metals Category 1.  |  |
| Skin Corr. 1A  | Skin corrosion/irritation Category 1A.   |  |
| H290   | May be corrosive to metals.  |  |
| H314   | Causes severe skin burns and eye damage.                                       |  |
| H318   | Causes serious eye damage.   |  |
| H402   | Harmful to aquatic life.   |  |

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or

residual injury even though prompt medical attention was

given.

NFPA Fire Hazard : 0 - Materials that will not burn.

NFPA Reactivity : 1 - Normally stable, but can become unstable at elevated

temperatures and pressures or may react with water with

some release of energy, but not violently.

**HMIS III Rating** 

**Health** : 3 Serious Hazard - Major injury likely unless prompt action is taken, and medical treatment is

given.

Flammability : 0 - Minimal Hazard.

Physical : 1 - Slight Hazard.

## Party Responsible for the Preparation of This Document

AFCO

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS SDS 2015 (U.S., Can., Mex.)

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