

Safety Data Sheet

Sodium Hydroxide 25% (w/w)

This SDS is valid for all grades

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Hydroxide 25% (w/w)

Synonyms/Generic Names: Caustic Soda Solution

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Alliance Chemical.
 204 S. Edmond St.
 Taylor, Texas 76574
 www.alliancechemical.com

For More Information Call: 512-365-6838 (Monday-Friday 8:00-4:00)

In Case of Emergency Call: CHEMTEL day or night (800) 255-3924.

2. HAZARDS IDENTIFICATION

Hazard Not Otherwise Classified (HNOC): None

Signal Words: Danger

Pictograms:



GHS Classification:

| | |
|------------------------|------------|
| Skin corrosion | Category 1 |
| Serious eye damage | Category 1 |
| Acute aquatic toxicity | Category 3 |

GHS Label Elements, including precautionary statements:

Hazard Statements:

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| H314 | Causes severe skin burns and eye damage. |
| H401 | Harmful to aquatic life. |

Precautionary Statements:

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| P260 | Do not breathe dusts or mists. |
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do not induce vomiting. |

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| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep 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/doctor/physician. |
| P363 | Wash contaminated clothing before reuse. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local regulations. |

Potential Health Effects

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|-------------------|---|
| Eyes | Causes severe eye burns. |
| Inhalation | May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. |
| Skin | May be harmful if absorbed through skin. Causes skin burns. |
| Ingestion | May be harmful if swallowed. |

NFPA Ratings

| | |
|------------------------|---------------|
| Health | 3 |
| Flammability | 0 |
| Reactivity | 0 |
| Specific hazard | Not Available |

HMIS Ratings

| | |
|-------------------|---|
| Health | 3 |
| Fire | 0 |
| Reactivity | 0 |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | CAS # | EINECS# / ELINCS# | Formula | Molecular Weight |
|------------------|----------|-----------|-------------------|------------------|------------------|
| Sodium Hydroxide | 25 | 1310-73-2 | 215-185-5 | NaOH | 40.00 g/mol |
| Water | 75 | 7732-18-5 | 231-791-2 | H ₂ O | 18.00 g/mol |

4. FIRST-AID MEASURES

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| Eyes | Rinse with plenty of water for at least 15 minutes and seek medical attention immediately. |
| Inhalation | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately. |
| Skin | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately. |
| Ingestion | Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention. |

5. FIRE-FIGHTING MEASURES

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| Suitable (and unsuitable) extinguishing media | Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water. |
| Special protective equipment and precautions for firefighters | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. |
| Specific hazards arising from the chemical | Emits toxic fumes (sodium oxides) under fire conditions. (See also Stability and Reactivity section). |

6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions, protective equipment and emergency procedures | See section 8 for recommendations on the use of personal protective equipment. |
| Environmental precautions | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements. |
| Methods and materials for containment and cleaning up | Neutralize spill. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. |

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

| Component | Exposure Limits | Basis | Entity |
|------------------|---------------------|-------|--------|
| Sodium Hydroxide | 2 mg/m ³ | CEIL | ACGIH |
| | 2 mg/m ³ | PEL | OSHA |
| | 2 mg/m ³ | CEIL | NIOSH |

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

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| Eyes | Wear chemical safety glasses or goggles, and face shield if splashing is likely to occur. |
| Inhalation | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| Skin | Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| Other | Not Available |

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance (physical state, color, etc.) | Colorless liquid |
| Odor | Odorless |
| Odor threshold | Not Available |
| pH | Not Available |
| Melting point/freezing point | Not Available |
| Initial boiling point and boiling range | Not Available |
| Flash point | Not Flammable |
| Evaporation rate | Not Available |
| Flammability (solid, gas) | Not Flammable |
| Upper/lower flammability or explosive limit | Not Explosive |
| Vapor pressure | Not Available |
| Vapor density | Not Available |
| Density | 1.30-1.33 |
| Solubility (ies) | Soluble in water |
| Partition coefficient: n-octanol/water | Not Available |
| Auto-ignition temperature | Not Applicable |
| Decomposition temperature | Not Available |

10. STABILITY AND REACTIVITY

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| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur. |
| Conditions to Avoid | Not Available |
| Incompatible Materials | Acids, organic materials, chlorinated solvents, aluminum, phosphorus, zinc, tin. |
| Hazardous Decomposition Products | Sodium oxides. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

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| Skin | Not Available |
| Eyes | Not Available |
| Respiratory | Not Available |
| Ingestion | Not Available |

Carcinogenicity

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| IARC | No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| ACGIH | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| NTP | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| OSHA | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

Signs & Symptoms of Exposure

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| Skin | Extent of damage depends on duration of contact. Burning, itching, redness, inflammation or swelling of exposed tissues. |
| Eyes | Eye burns, watering eyes. |
| Respiratory | Burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache, nausea. |

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| Ingestion | Burning, choking, nausea, vomiting, severe pain. |
| Chronic Toxicity | Not Available |
| Teratogenicity | Not Available |
| Mutagenicity | Not Available |
| Embryotoxicity | Not Available |
| Target Organ(s) | Kidney, Liver, Eyes, Skin, Mucous membranes, Respiratory system, Cardiovascular system |
| Reproductive Toxicity | Not Available |
| Respiratory/Skin Sensitization | Not Available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

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|-----------------------------|---------------|
| Aquatic Vertebrate | Not Available |
| Aquatic Invertebrate | Not Available |
| Terrestrial | Not Available |

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|--------------------------------------|---------------|
| Persistence and Degradability | Not Available |
| Bioaccumulative Potential | Not Available |
| Mobility in Soil | Not Available |
| PBT and vPvB Assessment | Not Available |
| Other Adverse Effects | Not Available |

13. DISPOSAL CONSIDERATIONS

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| Waste Product or Residues | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue. |
| Product Containers | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

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| US DOT | UN1824, Sodium hydroxide solution, 8, pg II |
| TDG | UN1824, SODIUM HYDROXIDE SOLUTION, 8, PG II |
| IMDG | UN1824, SODIUM HYDROXIDE SOLUTION, 8, PG II |
| Marine Pollutant | No |
| IATA/ICAO | UN1824, Sodium hydroxide solution, 8, pg II |

15. REGULATORY INFORMATION

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| TSCA Inventory Status | All ingredients are listed on the TSCA Active inventory. |
| DSL / NDSL | All ingredients are listed on the DSL inventory. |
| California Proposition 65 | Not Listed |
| Rhode Island: Hazardous Substance List | Listed: Sodium Hydroxide |

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|---|------------------------------|
| Massachusetts: Toxic or Hazardous Substance List, Right to Know | Not Listed |
| Pennsylvania: Hazardous Substance List | Listed: Sodium Hydroxide |
| New Jersey: Right to Know Hazardous Substance List | Listed: Sodium Hydroxide |
| SARA 302 | Not Listed |
| SARA 304 | Not Listed |
| SARA 311 | Acute Health Hazard. |
| SARA 312 | Acute Health Hazard. |
| SARA 313 | Not Listed |
| WHMIS Canada | Class E: Corrosive material. |

16. OTHER INFORMATION

Disclaimer: Alliance Chemical believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Alliance Chemical has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. ALLIANCE CHEMICAL MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.