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SECTION 1: Identification**Product identifier:** Alkali**Other means of identification:** Alkali - Laundry Alkali Builder**Product code:** 78001, 78002.**UN/ID No:** NA 1760**Recommended use:** Laundry care.**Recommended restrictions:** Not for personal care.**Supplier/Distributor information:**

Company name: Triple S
Address: 2 Executive Park Drive
Billerica, MA 01862
URL: www.triple-s.com
Email: info@triple-s.com
Telephone: (978)-667-7900
Emergency phone number: (888)-779-1339 (24 hr)

SECTION 2: Hazard(s) Identification**Classification of the mixture:****Physical hazards:**

Corrosive to metals Category 1

Health hazards:

Acute toxicity; dermal/oral: Category 4
Skin corrosion/irritation: Category 1B
Eye damage/irritation: Category 1

Label elements:**Signal word:** Danger**Hazard statements:**

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

SECTION 2: Hazard(s) identification (continued)**Precautionary statements****Prevention:**

- P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.
 P234 Keep only in original container.
 P260 Do not breathe mist/vapors/spray.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/protective clothing/eye protection.

Response:

- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor/physician. Take off immediately all contaminated clothing. Rinse skin with water/shower.
 +P310
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Immediately call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 +P310 Continue rinsing.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P390 Absorb spillage to prevent material-damage.

Storage:

- P405 Store locked up.
 P406 Store in corrosive resistant container or in a container with a resistant inner liner.

Disposal:

- P501 Dispose of contents/container in accordance with local/regional/national/ international regulations.

Hazard(s) not otherwise Classified (HNOC): Not Classified

SECTION 3: Composition/information on ingredients**Substance/Mixtures:**

Chemical name	CAS No.	Concentration (%)
Water	7732-18-5	50-60
Sodium hydroxide	1310-73-2	45-55

SECTION 4: First-aid measures

Description of first aid measures

General advice: Remove victims from the danger zone without endangering your own safety. Remove contaminated clothing (including underwear and shoes) immediately.

Inhalation: Bring accident victims out into the fresh air. Call a physician immediately.

Skin contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before re-use. After contact with small amounts get medical attention if any discomfort or irritation continues. For large amounts, obtain medical attention.

Eye contact: Immediately flush eyes with gentle but large stream of water or eye wash solution for at least 15 minutes, lifting lower and upper eyelids occasionally. If possible remove any contact lenses and continue to wash. Call a physician, immediately.

Ingestion: If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. DO NOT induce vomiting unless directed to do so by medical personnel. Call a physician, immediately.

Most important symptoms/effects, acute and delayed:

Notes to physician: The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation: Excessive inhalation of vapors can cause nasal and respiratory damage, dizziness, weakness, fatigue, nausea, vomiting, diarrhea, and possible unconsciousness. Severe exposures can lead to a chemical pneumonitis.

Ingestion: Corrosive. May cause sore throat, abdominal pain, nausea, and severe burns of the mouth, throat, and stomach. May affect the urinary system, liver, and blood.

Skin contact/irritation: Contact with vapors, mists, and liquid are corrosive to the skin, and may cause permanent skin damage, redness, pain and severe skin burns.

Eye contact: Liquid and mist are corrosive to the eyes. May cause redness, pain, blurred vision, eye burns, and permanent eye damage. Brief contact of the liquid causes severe eye burns and possible blindness. May cause corneal damage, conjunctivitis, and/or lachrymation.

Indication of immediate medical attention and special treatment needed, if necessary:

Cases of eye contact and ingestion should be treated immediately. Have facilities in place to wash skin and eyes in case of exposure. Ingestion damages mucous membranes and tissues of gastro-intestinal tract.

SECTION 5: Fire-fighting measures

Suitable extinguishing media: In case of fire use carbon dioxide (CO₂), foam, extinguishing powder. Use any means suitable for extinguishing surrounding fire. Applying water to this product may cause splattering of this corrosive liquid. Water spray on large fires may be ineffective but may be used to keep fire-exposed containers cool. If water is used, use in abundance to control heat.

SECTION 5: Fire-fighting measures (continued)

Unsuitable extinguishing media: Do not use water jet as this can spread the fire. Do not use carbon dioxide in enclosed spaces with insufficient ventilation.

Specific hazards arising from the chemical: Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. Product containers can melt in the heat of a fire. Packaging materials will be combustible and provide fuel for the fire.

Special protective equipment and precautions for fire-fighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. During fire-fighting respirator with independent air-supply and airtight garment is required. Fight fire in early stages if safe to do so. Provide ventilation and be wary of hydrogen generation upon reactions with some metals.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate area of leak or spill. Ensure adequate ventilation/exhaust extraction. Put on protective equipment (see Section 8). Have emergency procedures in place for treating spillages, evacuating the area and informing the emergency services if necessary. Restrict access to the area until the spillage is treated, if large amounts of vapors are produced that will be hazardous to others, evacuate the area. Non-emergency personnel should be kept away from the area of spillage.

Environment precautions: Clean up any spillages immediately; prevent material from spreading and entering drains or sewage systems. Large spillages or uncontrolled discharge to water systems must be alerted to the environmental agency or other regulatory body.

Methods and materials for containment and cleaning up: Contain and recover liquid when possible. Small spillages should be absorbed with an inert, non-combustible absorbent. Large Spillages: Dam and absorb spillages with sand, earth or other inert material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Containers with collected spillage must be properly labeled with correct contents and hazard symbol. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery. Ventilate area and allow drying before allowing access.

Reference to other sections: Refer to sections 8 and 13 for additional information.

SECTION 7: Handling and storage

Precautions for safe handling: Keep in a closed container and protect from physical damage. Store in a cool, dry, and ventilated area. Keep away from sources of heat, moisture, incompatibilities, and away from direct sunlight. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do not wash out container and use it for other purposes.

Conditions for safe storage, including any incompatibilities: Store in closed original container at temperatures between 40°F and 80°F. If the product is transferred to another container, this should be made of a compatible material to the original container. Store away from heat, direct sunlight and moisture. Store in a stable situation to avoid spillages. It is advisable to store in a bunded area or use other protective measures such as a sump pallet or storage tray.

SECTION 7: Handling and storage (continued)

Keep away from: Strong acids, combustible materials and metals.

Suitable packaging material: stainless steel, nickel, polyethylene, polypropylene, glass and stoneware/porcelain.

Non-suitable packaging material: lead, aluminum, copper, zinc, bronze, and tin.

SECTION 8: Exposure control/personal protection

Control Parameters

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

U.S. ACGIH Threshold Limit Values

Chemical Name	CAS-No.	OSHA PEL	ACGIH- TLV
Sodium Hydroxide	1310-73-2	2 mg/m ³	2 mg/m ³

Appropriate engineering controls:

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the defined exposure limit requirements or guidelines. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition for details.

Individual protection measures, such as personal protective equipment (PPE)

Eye Protection: Use chemical safety goggles and/or full-face shield where dusting or splashing of solutions' is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Hand protection: Wear protective gloves. Butyl rubber, rubber (natural, latex), nitrile, polyvinyl chloride (PVC). Be aware that latex gloves can produce an allergic reaction in sensitive individuals. Gloves should have a breakthrough time sufficient for the amount of handling but allow dexterity for safe movement and handling. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Personal Respirators (NIOSH Approved):

For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. Respirator must be fitted with a cartridge suitable for the chemical of concern. Consult with the supplier as to the compatibility of the equipment with the chemical of concern.

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: Wash hands, change out of clothes as soon as possible.

Other protective measures: Have an eye bath and safety shower close by.

SECTION 9: Physical and chemical properties

Appearance:	Liquid
Color:	Clear
Odor:	No odor
Odor Threshold:	No data available
pH:	13.0 ± 0.5
Melting point/range:	No data available
Boiling point/range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability of explosive limits:	No data available
Vapour pressure (mm Hg):	No data available
Vapour density (Air=1):	No data available
Relative density:	No data available
Solubility(ies):	Excellent
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, dynamic:	No data available
Other Information:	This product does not contain phosphates.

SECTION 10: Stability and reactivity

Reactivity and/or chemical stability: Produces an exothermic reaction with water, produces a violent exothermic reaction with strong acids and reacts with some metals to release hydrogen. If stored and handled in accordance with standard industrial practices no hazardous reactions are known. Product is very stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Avoid heat, freezing, direct sunlight, and moisture. Avoid storage with incompatible materials. Avoid storage near unprotected drainage systems. Avoid storage in an unstable manner or in a situation that would result in exposure to the product. It is advisable to store the product within some form of containment to prevent spillages reaching drainage systems.

Incompatible materials: Oxidizing or reducing materials, mineral acids, combustible materials, strong acids, reactive metals (i.e., aluminum, tin, zinc, and their alloys) hydrocarbons. Additionally, it is incompatible with organic halogen compounds, organic nitro compounds. Avoid contact with leather and wool. Reactions with various food sugars may form carbon monoxide.

Hazardous decomposition products: Reacts with (some) metals and releases highly flammable gases/vapors (hydrogen). On heating: releases corrosive gases/vapors. No hazardous decomposition if stored and handled correctly.

SECTION 11: Toxicological information

Acute toxicity: Toxicological testing has not been conducted with this material. The toxicology information listed below us based on the components of this material.

Category 4- dermal/oral: Harmful if; in contact in skin, swallowed.

Sodium hydroxide - Acute Toxicity Estimate (ATE)	
Oral LD ₅₀ 500 mg/kg (Rat)	Dermal LD ₅₀ 1,350 mg/kg (Rabbit)

Skin Corrosion/ irritation: Category 1: Causes severe skin burns and eye damage due to an alkaline pH.

Serious eye damage/irritation: Category 1: Causes serious eye damage due to an alkaline pH.

Respiratory or skin sensitization: Classification not possible.

Germ cell mutagenicity: Classification not possible.

Carcinogenicity: Classification not possible. **Reproductive toxicity:** Classification not possible.

Specific Target Organ Toxicity - Single Exposure: Classification not possible.

Specific Target Organ Toxicity - Repeated Exposure: Classification not possible.

Aspiration hazard: Classification not possible.

SECTION 12: Ecological information

Toxicity: Do not allow to escape into waterways, wastewater or soil. Ecotoxicological studies of the product are not available. Please find below the data available to us from raw materials:

Aquatic ecotoxicity:

Sodium Hydroxide		
LC ₁₀₀ (Cyprinus carpio) 180 ppm/24hr/25°C	TL _m (mosquito fish) 125ppm/96hr (fresh water)	TL _m (bluegill) 99mg/L/48hr/ (tap water)

Persistence and degradability: Sodium hydroxide will rapidly dissolve and dissociate in water.

Bioaccumulative potential: Accumulation in organism is not to be expected.

Mobility in soil: High water solubility indicates that sodium hydroxide will be found predominately in aquatic environment. During movement through soil some ion exchange will occur. Also, some of the hydroxide may remain in the aqueous phase and will move downward through soil in the direction of groundwater flow. Sodium hydroxide does not cause biological oxygen deficit.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

General information

Do not allow unauthorized disposal to the environment. If operators are exposed to vapors during the disposal process then suitable respiratory protection should be worn. All other personal protective equipment as described in section 8 should be worn.

Disposal methods:

Avoid unauthorized disposal. Do not dump into any sewers, on the ground, or into any body of water. All disposal practices must be in compliance with federal, state/provincial and local laws and regulations.

SECTION 14: Transport information

UN Number: NA 1760
UN Proper Shipping Name: Compound, Cleaning liquid (Sodium Hydroxide)
Transport hazard class(es):
DOT Hazard Class: 8
DOT Subsidiary Hazard Class: Not available
Label: Corrosive
Packing group, if available: II
Environmental Hazards: Yes
Special precautions for user: Not available.
Transport in bulk according to Annex II of MARPOL 73/78³ and the IBC Code ³: Not applicable

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Unless otherwise noted, no components are SARA TITLE 3 SECTION 313 40 CFR listed materials.
The ingredients of this product are listed on the TSCA inventory.
This product is not made with VOC'S that could cause damage to the ozone layer.

CERCLA Reportable Quantity (RQ): Sodium Hydroxide= 1,000 lbs.

State Regulatory Information: Components of this product are covered under specific state regulations, as denoted below:

Alaska- Designated toxic and hazardous substances: Sodium Hydroxide
California- Permissible Exposure Limits for Chemical Contaminants: Sodium Hydroxide
Florida- Substance List: Sodium Hydroxide
Illinois- Toxic Substance List: Sodium Hydroxide
Kansas- Toxic Substance List: Sodium Hydroxide
Minnesota- List of Hazardous Substances: Sodium Hydroxide
Missouri- Employer Information/Toxic Substance List: Sodium Hydroxide
New Jersey- Right to Know Hazardous Substance List: Sodium Hydroxide
North Dakota- List of Hazardous Chemicals, Reportable Quantities: Sodium Hydroxide

SECTION 15: Regulatory information (continued)

Pennsylvania- Hazardous Substance List: Sodium Hydroxide
Rhode Island- Hazardous Substance List: Sodium Hydroxide
Texas- Hazardous Substance List: Sodium Hydroxide
West Virginia- Substance List: Sodium Hydroxide
Wisconsin- Toxic and Hazardous Substances: Sodium Hydroxide

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

SECTION 16: Other information including date of preparation or last revision

Chemical State: Liquid

Chemical Type: Mixture

3	Health
0	Flammability
1	Physical Hazard
C	Personal Protection

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