

**Safety Data Sheet**  
**Material Identity:**  
**Caustic Soda All Grades**

**SECTION 1 · PRODUCT IDENTIFICATION**

**Manufacturer:**

Chemical Services, Inc  
 2600 Thunderhawk Court  
 Dayton, Ohio 45414

**Emergency Phone CHEMTREC:** (800) 424-9300

**General Information:** (937) 898-5566

**FAX Information:** (937) 898-7602

**SECTION 2· HAZARDS IDENTIFICATION**

**GHS Classification:**

**[ Health ]**

Acute toxicity, Oral Category 4  
 Skin corrosion Category 1A  
 Serious eye damage Category 1

**[ Environmental ]**

Acute aquatic toxicity Category 3

**[ Physical ]**

Corrosive Liquid Category 2

**GHS Label elements, including precautionary statements**

**Pictograms**



**Signal Word:** Danger

**Health Phrases:**

H302: Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H402 Harmful to aquatic life.

**Precautionary Phrases:**

P264 Wash skin 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.

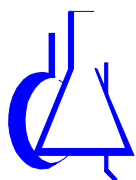
P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P501 Dispose of contents/ container to an approved waste disposal facility.

**SECTION 3 · COMPOSITION / INFORMATION ON INGREDIENTS**

CHEMICAL NAME	CAS Number	%Volume
Sodium Hydroxide	1310-73-2	5.5-51.5
Sodium Chloride	7647-14-5	0-5



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### SECTION 4 - FIRST AID MEASURES

#### FIRST AID PROCEDURES:

**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance. Call a physician or poison control center immediately.

**Skin contact:** Take off all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately! Destroy or thoroughly clean contaminated clothing and shoes.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician for immediately assistance.

**Ingestion:** Call a physician immediately. Do not induce vomiting. Immediately rinse mouth and drink plenty of water. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to an unconscious person. Do not use mouth-to-mouth method if victim ingested the substance.

### SECTION 5 - FIRE FIGHTING MEASURES

**Suitable extinguishing media:** Water fog, foam, dry chemical powder, carbon dioxide (CO<sub>2</sub>).

**Special Remarks on Fire Hazards:** The product itself does not burn. May decompose upon heating to produce corrosive and/or toxic fumes. Contact with metal may release flammable hydrogen gas.

**Hazardous combustion products:** Oxides of carbon. When heated to decomposition it emits acrid smoke and fumes.

**General Information:** Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

### SECTION 6 - ACCIDENTAL RELEASE and DISPOSAL MEASURES

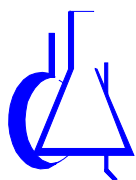
Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained.

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Following product recovery, flush area with water.

**Small Spills:** Absorb spill with vermiculite or other inert material. Clean surface thoroughly to remove residual contamination.

### SECTION 7 - STORAGE AND HANDLING

**Precautions To Be Taken:** Store in a cool, dry, ventilated area, away from incompatible substances. Store only in approved properly labeled containers. Keep container closed and tightly sealed when not in use. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe mist or vapor. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.



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### SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Engineering Controls:** Provide adequate ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. The level of protection and types of controls will vary depending upon potential exposure conditions.

**Exposure Limits:**

Sodium Hydroxide	2 ppm ACGIH; 2 ppm OSHA
Sodium Chloride	No Available Data from ACGIH or OSHA

**Personal Protective Equipment (PPE):**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

**Skin:** Wear appropriate protective gloves.

**Clothing:** Selection of protective clothing depends on work conditions.

**Respirators:** Where adequate ventilation is not available an approved respirator must be worn. Respirator selection, should be in accordance with the requirements of OSHA Respiratory Protection Standard, 29 CFR 1920.134. In confined spaces, use a self-contained breathing apparatus.

**Other Equipment:** Adequate corrosion proof ventilation to control airborne concentrations below the exposure limits. Eye wash station and shower in close proximity to use are advised.

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Flash Point:** Not Flammable

**Autoignition Temperature:** Not published data

**Boiling Point:** 230-291 °F

**Melting Point/Freezing Point:** -26 to 59 °F

**Vapor Pressure:** 13-135 mmHg

**Vapor Density (Air-1):** Not published data

**Odor/Appearance:** Colorless liquid with mild odor

**Flammability Limits:** Not applicable

**Specific Gravity:** 1.11-1.53

**Volatile %:** Not published data

**Evaporation Rate (BuAc=1):** 1

**Viscosity:** Not published data.

**pH:** ≥ 12.5

**Solubility in Water:** Soluble

### SECTION 10 - STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal use and temperature conditions.

**Conditions to Avoid:** Reacts violently with strong acids. This product may react with oxidizing agents. Do not mix with other chemicals. Corrosive to aluminum, tin, zinc, copper and most alloys in which they are present including brass and bronze. Corrosive to steels at elevated temperatures above 140 °F

**Decomposition Products:** Contact with metals (aluminum, zinc, tin) liberates hydrogen gas, acrid vapors and smoke.

### SECTION 11 - TOXICOLOGICAL INFORMATION

**Signs and Symptoms of Overexposure:**

**Ingestion:** Causes digestive tract burns. Harmful if swallowed.

**Inhalation:** May cause irritation to the respiratory system.

**Skin contact:** Causes severe skin burns.

**Eye contact:** Causes severe eye burns. Causes serious eye damage.

**Acute oral toxicity:**

Sodium Hydroxide: LD50 rat: 300-500 mg/kg

Sodium Chloride: LD50 rat: 3 g/kg

**Acute inhalation toxicity:**

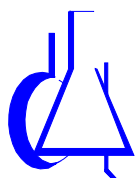
Sodium Hydroxide: LC50 rat: 40 mg/kg

Sodium Chloride: LC50 rat: 42 g/m<sup>3</sup>

**Acute dermal toxicity:**

Sodium Hydroxide: LD50 Rabbit: >2 g/kg

Sodium Chloride: LD50 Rabbit: 10 g/kg



# Safety Data Sheet

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### SECTION 12 - ECOLOGICAL INFORMATION

**Aquatic Toxicity:** Acute. Fish LC50 Bluegill (*Lepomis macrochirus*) 99 mg/l, 48 hours  
**Bio-accumulative potential:** The product is not expected to bioaccumulate.  
**Mobility:** Moderately mobile and likely to volatilize rapidly in air and from soil surface.

### SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

### SECTION 14 - TRANSPORTATION

#### U.S. DEPARTMENT OF TRANSPORTATION (Road or Rail):

**Proper Shipping Name:** Sodium Hydroxide Solution  
**Hazard Class:** 8  
**UN Number:** 1824  
**Packaging Group:** 2  
**ERG Number:** 154

### SECTION 15 - REGULATORY INFORMATION

#### US FEDERAL REGULATIONS

##### Comprehensive Environmental Response and Liability Act (CERCLA)

The reportable quantity (RQ) for this material has is 1000 pounds. If appropriate, immediately report to the National Response Center (800/424-8802) as required by U.S.Federal Law. Also contact appropriate state and local regulatory agencies.

**Toxic Substance Control Act (TSCA):** All components of this product are listed on the TSCA inventory list.

##### SARA Section 311/312 (40 CFR 370) Hazard Categories:

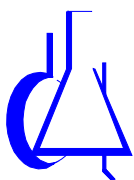
Immediate Health Hazard, Reactivity Hazard

**SARA Section 313 (40 CFR 372) Hazard Categories:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Water Act:** None of the chemicals in this product are listed as Hazardous Substances under the CWA

**Clean Air Act:** None of the chemicals in this product are listed as Hazardous Substances under the CAA.

**California Prop 65:** This product contains no chemicals known by the State of California to cause cancer, birth defects or other reproductive harm.



**ChemGroup**  
Bonded Chemicals, Inc.  
Chemicals Incorporated, USA  
Chemical Services, Inc.  
Chemical Resources, Inc.  
Specialty Chemical Co. LLC

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#### SECTION 16 - OTHER INFORMATION

**SDS Creation Date:** April 2015

**National Fire Protection Association (NFPA) Ratings:** This information is intended solely for the use of individuals trained in the NFPA system.

**Health:** 3

**Flammability:** 0

**Reactivity:** 1

The information contained on this Safety Data Sheet is considered accurate as of the date of publication. It is not necessarily all inclusive or fully adequate in every circumstance. The suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements. No warranty, express or implied, of merchantability, fitness, accuracy of data, or the results to be obtained from the use thereof is made. The vendor assumes no responsibility for injury or damages resulting from the inappropriate use of this product.