

## Sodium Hydroxide 50% Electronic Grade

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Sodium Hydroxide 50% Electronic Grade

**Synonyms/Generic Names:** Caustic Soda Solution

**Product Number:** 5069

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 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:**

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

**Precautionary Statements:**

|                |  |
|----------------|--|
| 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.                         |

|                |  |
|----------------|--|
| 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

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

### NFPA Ratings

|                        |               |
|------------------------|---------------|
| <b>Health</b>          | 3             |
| <b>Flammability</b>    | 0             |
| <b>Reactivity</b>      | 1             |
| <b>Specific hazard</b> | Not Available |

### HMIS Ratings

|                   |   |
|-------------------|---|
| <b>Health</b>     | 3 |
| <b>Fire</b>       | 0 |
| <b>Reactivity</b> | 1 |

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component        | Weight % | CAS #     | EINECS# / ELINCS# | Formula          | Molecular Weight |
|------------------|----------|-----------|-------------------|------------------|------------------|
| Sodium Hydroxide | 50       | 1310-73-2 | 215-185-5         | NaOH             | 40.00 g/mol      |
| Water            | Balance  | 7732-18-5 | 231-791-2         | H <sub>2</sub> O | 18.00 g/mol      |

## 4. FIRST-AID MEASURES

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.   |
| <b>Inhalation</b> | 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. |
| <b>Skin</b>       | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.            |
| <b>Ingestion</b>  | <b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.                  |

## 5. FIRE-FIGHTING MEASURES

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

## 6. ACCIDENTAL RELEASE MEASURES

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | See section 8 for recommendations on the use of personal protective equipment.  |
| <b>Environmental precautions</b>   | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.   |
| <b>Methods and materials for containment and cleaning up</b>               | 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 dry, well ventilated area. Recommend storage temperature is above 65 °F. 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 <sup>3</sup> | CEIL  | ACGIH  |
|                  | 2 mg/m <sup>3</sup> | PEL   | OSHA   |
|                  | 2 mg/m <sup>3</sup> | 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

|                   |   |
|-------------------|---|
| <b>Eyes</b>       | Wear chemical safety glasses or goggles.  |
| <b>Inhalation</b> | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| <b>Skin</b>       | Wear nitrile or rubber gloves, apron or lab coat.   |
| <b>Other</b>      | 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

|   |                                      |
|---|--------------------------------------|
| Appearance (physical state, color, etc.)    | Colorless liquid.                    |
| Odor  | Odorless.                            |
| Odor threshold                              | Not Available                        |
| pH  | 14                                   |
| Melting point/freezing point                | 15 °C (59 °F)                        |
| Initial boiling point and boiling range     | 145 °C (293 °F)                      |
| Flash point                                 | Not Flammable                        |
| Evaporation rate                            | Not Available                        |
| Flammability (solid, gas)                   | Not Flammable                        |
| Upper/lower flammability or explosive limit | Not Explosive                        |
| Vapor pressure                              | <24 hPa (<18 mmHg) at -20 °C (68 °F) |
| Vapor density                               | 1.33 (air=1)                         |
| Density                                     | 1.54 g/cm <sup>3</sup>               |
| 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

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

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

|                    |               |
|--------------------|---------------|
| <b>Skin</b>        | Not Available |
| <b>Eyes</b>        | Not Available |
| <b>Respiratory</b> | Not Available |
| <b>Ingestion</b>   | Not Available |

### Carcinogenicity

|              |  |
|--------------|--|
| <b>IARC</b>  | 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. |
| <b>ACGIH</b> | 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.            |
| <b>NTP</b>   | 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.                 |
| <b>OSHA</b>  | 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

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

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

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

|                             |               |
|-----------------------------|---------------|
| <b>Aquatic Vertebrate</b>   | Not Available |
| <b>Aquatic Invertebrate</b> | Not Available |
| <b>Terrestrial</b>          | Not Available |

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

## 13. DISPOSAL CONSIDERATIONS

|                           |   |
|---------------------------|---|
| <b>Waste Residues</b>     | 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. |
| <b>Product Containers</b> | 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

|                  |   |
|------------------|---|
| 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

|  |  |
|--|--|
| 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                                 |

|   |                              |
|---|------------------------------|
| 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. |

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## 16. OTHER INFORMATION

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| Revision   | Date       |
|------------|------------|
| Original   | 01/08/2015 |
| Revision 1 | 03/14/2016 |
| Revision 2 | 03/28/2022 |

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