Section I - Product Identification
An aqueous solution of sodium hydroxide.

Section II - Hazards Identification
Danger: Causes severe skin burns and eye damage. Wash thoroughly after handling. Wear protective clothing, eye and face protection. If swallowed, rinse mouth with water but do not induce vomiting. Immediately contact a poison control center. Remove contaminated clothing and wash before reuse. Rinse skin with water.

Safety Ratings

Health: Hazardous  Flammability: None  Reactivity: None  Contact: Corrosive
Recommended safety equipment: safety goggles, lab coat and proper gloves
Storage: General storage
NFPA Ratings
Health = 2  Flammability = 0  Reactivity = 0

Potential Health Effects
The toxicology of this compound has not been completely examined. It is presumed that the toxicity of this item is similar to that of other strong bases.

Inhalation: May be irritating but unlikely because of the low vapor pressure.
Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc.
Skin contact: Brief contact will cause discoloration and exfoliation. Prolonged contact will cause ulceration.
Eye contact: Brief contact will cause chemical burns that may permanently affect vision.
Chronic Exposure: Unknown
Aggravation of preexisting conditions: Unknown

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>2 mg/m3</td>
<td>2 mg/m3 ceiling</td>
<td></td>
<td>3% w/v</td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures
Inhalation: Remove from source of exposure and get medical assistance.
Ingestion: If the victim is conscious administer large amounts of water and get medical assistance. Do not induce vomiting. Never give anything by mouth to an unconscious person.
Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.
Eye Contact: Rinse thoroughly with running water and get medical treatment.
Section V - Fire Fighting Measures
Flash point: Not applicable.
Flammable Limits: Not applicable.
Fire: Not normally a fire Hazard.
Explosion: Not Normally an explosion hazards.
Fire Extinguishing Media: Any means suitable for surrounding fire.
Special information: Pyrolysis will release corrosive oxides.

Section VI - Accidental Release Measures
Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal.

Section VII - Handling and Storage
Store in a closed container, protected from freezing.

Section VIII - Exposure Control/Personal Protection
Airborne Exposure Limits: See section III.
Ventilation System: Usually not required because of the low vapor pressure. When required, Refer to the ACGIH document, “Industrial Ventilation, a Manual of Recommended Practices” for details about ventilation.
Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.
Skin protection: Protective gloves are required and recommended as part of good laboratory practice.
Eye Protection: Laboratory safety goggles or similar products are required and recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties
Boiling Point: 101 °C
Vapor pressure (mm Hg): 18 @ 20 °C
Vapor Density (air = 1): 0.6
Appearance and Odor: A clear, colorless liquid.
Density: 1.10 g/ml
Evaporation Rate (water = 1): 1
Solubility: Infinitely miscible with water

Section X - Stability and Reactivity
Stability: Freezes at low temperature.
Hazardous Decomposition Products: Nothing unusual.
Hazardous polymerization: Will not occur.
Incompatibilities: Nothing unusual.
Conditions to avoid: Excessive cold/heat and light.

Section XI - Toxicological Information
None relating to normal exposure.

Cancer lists
<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

Section XII - Ecological Information
Environmental Fate: Biodegradable
Environmental Toxicity: None
Section XIII - Disposal Considerations

Usually not restricted. Typically the pH of the sewage outflow from a building is restricted to Between 4 and 10. However, local governments have wide latitude to restrict the amounts of anything that may be flushed down the drain. Dispose of contents and container in accordance with all government regulations.

Section XIV - Transportation Information

**DOT Shipping name:** Sodium hydroxide solution. **Hazard Class:** 8 **Packing Group:** II

**DOT Hazard label:** Corrosive **DOT Identification Number:** UN1824

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under ORM-D or limited quantity exemptions [49 CFR section 173.154(b) and 173.154(C)].

Section XV - Regulatory Information

### Chemical Inventory Status

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Federal, State and International Regulations

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RQ</th>
<th>TPQ</th>
<th>List</th>
<th>Category</th>
<th>261.33</th>
<th>8(D)</th>
<th>Ca. Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Chemical Weapons Convention</td>
<td>No</td>
<td>TSCA 12(b): No</td>
<td>CDTA: No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 311/312: Acute: Yes, Chronic: Yes, Fire: No</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Section XVI - Other Information

This information is believed to be correct but is not waranteed as such, nor does it purport to be all inclusive.

Revision Date: Jan. 12, 2018