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

Section II - Hazards Identification

Overview: May be harmful if swallowed. May be irritating to skin and eyes.

Safety Ratings

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous</td>
<td>None</td>
<td>None</td>
<td>Hazardous</td>
</tr>
</tbody>
</table>

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 have not been completely examined. It is presumed that the toxicity of this item is similar to other strong bases.

Inhalation: Irritating to mucous membranes. Can cause burns and pulmonary edema.

Ingestion: Ingestion can cause burns to throat esophagus and stomach.

Skin contact: Irritating. Prolonged contact can cause yellowing and burning of skin.

Eye contact: Corrosive. May cause permanent eye injury.

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>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>2 mg/m3 ceiling</td>
<td>2 mg/m3 ceiling</td>
<td>40% w/v</td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures

Inhalation: Because of the low vapor pressure, inhalation is unlikely to be a problem.

Ingestion: Do not induce vomiting. If the victim is conscious administer large amounts of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: Rinse thoroughly with running water. Get immediate medical advice.
Section V - Fire Fighting Measures

*Flash point:* Not applicable.
*Flammable:* Not applicable.
*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. 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 recommended as part of good laboratory practice.
*Eye Protection:* Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>101°C</td>
</tr>
<tr>
<td>Vapor pressure (mm Hg)</td>
<td>18 @ 20°C</td>
</tr>
<tr>
<td>Vapor Density (air = 1)</td>
<td>0.6</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>A clear colorless liquid.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>1.26 g/ml</td>
</tr>
<tr>
<td>Evaporation Rate (water = 1)</td>
<td>1</td>
</tr>
<tr>
<td>Solubility</td>
<td>Infinitely miscible with water</td>
</tr>
</tbody>
</table>

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

Potassium hydroxide is corrosive to skin.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium 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. However, local governments have wide latitude to restrict the amounts of anything that may be flushed down the drain. Typically the pH of the sewage outflow from a building is restricted to Between 4 and 10. Insure compliance with all government regulations.
Section - XIV Transportation Information

DOT Shipping name: Potassium hydroxide solution.  
Hazard Class: 8  
Packing Group: II  
DOT Hazard label: Corrosive  
DOT Identification Number: UN1814

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>Potassium Hydroxide</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Federal, State and International Regulations

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>RCRA 261.33</th>
<th>TSCA 8(D)</th>
<th>Ca. Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Hydroxide</td>
<td>RQ No</td>
<td>TPQ No</td>
<td>List No</td>
<td>Category No</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No  
TSCA 12(b): No  
CDTA: No  
SARA 311/312: Acute: Yes, Chronic: Yes, Flammable: No

Section - XVI Other Information

This information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.  
Revision Date: Jan. 20, 2014