1. Product and company identification

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>SURGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN/ID No.</td>
<td>UN1814, Potassium Hydroxide Solution</td>
</tr>
</tbody>
</table>

**Recommended use of the chemical and restrictions on use**

- **Recommended use**: Liquid Dish Machine Compound
- **Supplier**: Butler Chemicals
  
  3070 E. Ceena Ct.  
  Anaheim, CA. 92806

- **Date**: December 27, 2018

- **Responsible name**: K.B.

**In case of emergency**

- **HEALTH EMERGENCIES ― SPILL EMERGENCIES**
  
  CALL INFOTRAC 1(800) 535-5053

| Product type: | MIXTURE |

2. Hazards identification

- **Appearance**: Red Liquid
- **Physical State**: Liquid
- **Odor**: No Odor

- **Signal Word**: Danger

**Pictograms:**

- ![Pictogram]

**Main Hazard**: Causes burns, destructive to tissue, nasal and respiratory tract

**Hazard Statement**: Causes severe skin burns, tissue and eye damage, respiratory tract and mucus membranes and deep tissue

**Precautionary Statements – Preventions**

- Wash face, hands and any exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area
- Do not breath dust/fume/gas/mist/vapors/spray
- Wear protective gloves/protective clothing/eye protection/face protection
- Keep out of Reach of Children

**Precautionary Statements – Response**

- Immediately call a poison center or doctor/physician

  - **EYES**: Flush with large amounts of water. Consult a physician immediately
  - **SKIN**: Wash with water. remove contaminated clothing and foot wear, seek medical attention
  - **INHALATION**: Get person out of contaminated area to fresh air. Seek medical attention.
  - **INGESTION**: Do not induce vomiting. Give large quantities of water or milk. Consult physician immediately

**Precautionary Statements – Storage**

- Store locked up
- Store in a well-ventilated area. Keep container tightly closed.
Precautionary Statements - Disposal
Dispose of contents and container in accordance with Federal, State and Local laws.

Other Hazards
Harmful to aquatic life

### 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTASSIUM HYDROXIDE</td>
<td>1310-58-3</td>
<td>24%</td>
</tr>
</tbody>
</table>

### 4. First aid measures

**Eye contact:**
Immediately rinse with plenty of water for at least 15 minutes and seek medical attention immediately.

**Skin contact:**
Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

**Inhalation:**
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.

**Ingestion:**
**Do Not Induce Vomiting!** Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

**Note to physician**
Treat symptomatically

### 5. Fire-fighting measures

**Flash point:**
>200 Deg. F. (Tag Closed Cup)

**Flammability of the product:**
None, Material is not flammable but reactive to water. Use appropriate media for adjacent fire.

**Extinguishing media:**
Co2, Water Spray, Water

**Special protective equipment for fire-fighters:**
Wear self contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

**Specific hazards arising from the chemical**
Emits toxic fumes (potassium oxides) under fire conditions. (See also Stability and Reactivity section).

### 6. Accidental release measures

**Personal precautions:**
See section 8 for recommendations on the use of personal protective equipment.

**Environmental precautions:**
Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

**Methods for cleaning up**
Dike contain liquid area using protective clothing, absorb with sand or other absorbent. Pick up and place in suitable, closed container for disposal. Dispose of all waste and cleanup materials in accordance with regulations.

### 7. Handling and storage

**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.

**Storage**
Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep away from incompatible materials (see section 10 for
8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

**Engineering Controls**
- Apply technical measures to comply with the occupational exposure limits.
- Local exhaust ventilation recommended. Eye wash stations. Showers and washing facilities accessible to areas of use and handling.

**Individual-protection measures, such as personal protective equipment**

**Eye/Face Protection**
- Wear chemical anti-splash safety glasses or goggles

**Skin and Body Protection**
- Wear nitrile or rubber gloves, apron or lab coat, as appropriate, to prevent skin contact

**Respiratory Protection**
- Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator

**General Hygiene considerations**
- Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>&gt;200 Deg. F.</td>
</tr>
<tr>
<td>Color</td>
<td>Red Liquid</td>
</tr>
<tr>
<td>pH</td>
<td>13</td>
</tr>
<tr>
<td>Vapor Pressure (mm GHz)</td>
<td>N/E</td>
</tr>
<tr>
<td>Specific Gravity (H2O=1)</td>
<td>1.03</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate (N-Butyl Acetate)</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Complete</td>
</tr>
<tr>
<td>Reactivity in Water</td>
<td>None</td>
</tr>
<tr>
<td>Boiling Point (F)</td>
<td>Approx. 212 Degrees F</td>
</tr>
</tbody>
</table>

10. Stability reactivity

<table>
<thead>
<tr>
<th>Stability</th>
<th>Stable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous polymerization</td>
<td>Will not Occur</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Contact with strong mineral acids, metals amphoteric metals: Strong Acids</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Amphoteric Metals: Strong Acids</td>
</tr>
<tr>
<td>Hazardous decomposition</td>
<td>None</td>
</tr>
</tbody>
</table>

11. Toxicological information

**Acute toxicity:**

- Skin: Not Available
- Eyes: Not Available
- Respiratory: Not Available
- Ingestion: LD50 Oral – rat 273 mg/kg

**Carcinogenicity:**

No components of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Signs & Symptoms of Exposure:**

- Skin: Irritation, Redness, Itchiness
- Eyes: Irritation, Redness, watering eyes, itchiness
- Respiratory: Irritation, coughing, wheezing
Ingestions
Irritation, nausea, vomiting, diarrhea

**Chronic Toxicity:**
May cause damage to the following organs: upper respiratory tract, skin, eyes.

### 12. Ecological information

**Environmental effects:** Harmful to aquatic life

### 13. Disposal considerations

**Waste disposal:** The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a license waste contactor. Disposal of this product, solutions and any by products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contract with soil, waterways, drains and sewers.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14. Transport information

**Note:** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

When shipped in containers of 32 oz. or less this material may be reclassified in accordance with DOT regulations 49CFR173.154 as: Limited Quantity.

<table>
<thead>
<tr>
<th>Regulatory</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>UN1814</td>
<td>Potassium Hydroxide Solution</td>
<td>8</td>
<td>II</td>
<td>32 oz Bottles, ORM-D-Limited Quantity</td>
</tr>
</tbody>
</table>

*PG: Packing group

### 15. Regulatory information

**International Inventories**
Not determined

**California Proposition 65**
This product does not contain any Proposition 65 Chemicals

### 16. Other information

<table>
<thead>
<tr>
<th>HMIS</th>
<th>HEALTH</th>
<th>FIRE</th>
<th>REACTIVITY</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>B</td>
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</table>

**Disclaimer**
The information provided in the Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and in not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet