SECTION 1 • CHEMICAL PRODUCT
Product Name: Liquid Detergent and Antibacterial Hand Soaps

SECTION 2 • COMPOSITION, INFORMATION ON INGREDIENTS
Composition:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Composition</th>
<th>LD50/LC50 Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>0.1-1%</td>
<td>LD50 (oral, rat) – 7.06 g/kg</td>
</tr>
<tr>
<td>Sodium Laurel Sulfate</td>
<td>68585-34-21</td>
<td>30%</td>
<td>LD50 (oral, rat) - &gt;2g/kg</td>
</tr>
<tr>
<td>Alcohol Sulfates</td>
<td>68585-47-7</td>
<td>12%</td>
<td>LD50 (oral, rat) - &gt;2g/kg</td>
</tr>
<tr>
<td>Amines, C10-16 Alkyldimethyl</td>
<td>70592-80-21</td>
<td>21-25%</td>
<td>LD50 (oral, rat) - 1.33 g/kg</td>
</tr>
</tbody>
</table>

SECTION 3 • HAZARDS IDENTIFICATION

Potential Acute Health Effects:
Ingestion: Ingestion may cause transient gastrointestinal irritation.
Eye Contact: May cause mild, transient irritation.
Skin: Transient irritation with prolonged exposure to concentrated material.
Inhalation: N/A

Signs and Symptoms of Exposure:
Ingestion: May result in nausea, vomiting, and / or diarrhea.
Eye Contact: May cause stinging, tearing, itching, swelling, and / or redness.
Skin: Prolonged contact with concentrated material may be drying or irritating to skin.
Inhalation: N/A

SECTION 4 • FIRST AID MEASURES

Eye Contact: Flush thoroughly with water for 15 minutes.
Skin: If prolonged contact occurs, rinse thoroughly with water. If spilled on clothing, change clothes. If symptoms persist or recur, seek medical attention.
Inhalation: N/A
Other: For external use only. Keep out of the reach of children. If detergent gets in eyes, rinse thoroughly with water. If swallowed, drink a glass of water to dilute.”
SECTION 5 • FIRE FIGHTING MEASURES

Flammability of the Product: The liquid hand dishwashing detergents have a flashpoint of 115-135°F (46.1-57.2°C) Pensky-Martens (Closed cup). However, the detergents do not sustain combustion according to ASTM D4206.

- Flammable Properties:
  - Upper Flammable Limit: N/A
  - Lower Flammable Limit: N/A
  - Explosive Limits: UEL: N/A
  - LEL: N/A
  - Auto-ignition Temperature: N/A
  - Hazardous Combustion Products: N/A
  - Explosion Data (Sensitivity to Mechanical Impact): N/A
  - Explosion Data (Sensitivity to Static Discharge): N/A
  - Extinguishing Media: Suitable: CO2, water or dry chemical may be used. Unsuitable: N/K
  - Protection of Firefighters: Specific Hazards Arising from the Material: None.

SECTION 6 • ACCIDENTAL RELEASE MEASURES

Small Spill:
DISPLOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. Solutions of the detergents may be allowed to be flushed down sewer - First check with your local water treatment plant. Recycling is recommended for undiluted scrap product. Do not landfill. Steps To Be Taken in Case Material is Released or Spilled: Prevent spills from reaching a waterway. Sorbents may be used. Read “Waste Disposal Method” below for further information.

SECTION 7 • HANDLING AND STORAGE

Precautions:
Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8 • EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**
TWA: 2 (mg (Al)/m) from ACGIH (TLV) [United States] TWA: 2 (mg (Al)/m) [United Kingdom (UK)] Consult local authorities for acceptable exposure limits

**SECTION 9 • PHYSICAL AND CHEMICAL PROPERTIES**
Physical state and appearance: Clear, opaque or colored liquids.
Odor: Perfumed
Odor Threshold: N/A
Physical State: Liquid hand dishwashing solution
Vapor Pressure (mm Hg): N/K
Vapor Density (Air=1): N/K
Boiling Point: N/K Partition Coefficient (n-octanol/water): N/K
Flash Point (Method Used): 115-135°F (46.1-57.2°C)
Pensky-Martens (Closed cup) but do not sustain combustion according to ASTM D4206.
Reserve Alkalinity: N/A
Solubility in Water: Complete
Decomposition Temperature: N/K Evaporation Rate (nBuOAc=1): N/K
Specific Gravity/Density: ca. 1
Melting/Freezing Point: ~ 30 °F (-1.1°C)
pH (10% solution): 9
Volatile Organic Compound (VOC): Not applicable - Product not regulated for VOC Content at State or Federal level

**SECTION 10 • STABILITY AND REACTIVITY**
Stability: Stable
Conditions to Avoid: None known
Incompatible Materials: None
Hazardous Decomposition Products: None known
Possibility of Hazardous Reactions: None known

**SECTION 11 • TOXICOLOGICAL INFORMATION**
Liquid hand dish washing detergents have a relatively low order of toxicity, may cause transient irritation and are expected to be emetic.
Chronic Effects: No chronic health effects reported.
Target Organs: No target organs reported.
Carcinogenicity: This finished product is not carcinogenic.
NTP: No
IARC: No
OSHA: No
SECTION 12 • ECOLOGICAL INFORMATION
Special Remarks on the Products of Biodegradation: Not available.

SECTION 13 • DISPOSAL CONSIDERATIONS
Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14 • TRANSPORT INFORMATION
DOT Classification: Not a DOT controlled material (United States).
Identification: Not applicable.
Special Provisions for Transport: Not applicable.

SECTION 15 • REGULATORY INFORMATION

*Federal and State Regulations:*
All intentionally-added components of this product are listed on the US TSCA Inventory. This product is not subject to warning labeling under California Proposition 65. EPA Reg. No.: Not Applicable
This product contains the following SARA 313/302/304/311/312 chemicals: None
This product contains the following CERCLA chemicals:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Max Range in Product (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

*State Right-to-Know:*
The following ingredients present in the finished product are listed on state right-to-know lists or state worker exposure lists:
Perfumes contained within the products covered by this MSDS comply with appropriate IFRA guidance

*Canada*
All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and this MSDS contains all information required by the Controlled Products Regulations.

SECTION 16 • OTHER INFORMATION
This Material Safety Data Sheet (MSDS) is to provided to you for your guidance only and is based upon publicly available information and tests that are believed to be reliable. However, Loose in the Lab, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. This data is offered solely for your evaluation, consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor purchasing and using the materials to be in accordance with applicable local, state or federal laws and regulations in addition to the mandates and guidelines of their specific school district.
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