Material Safety Data Sheet

1. CHEMICAL PRODUCT:
Goldwell Natural Energy
General Use: Permanent Wave
Item Numbers: 03020, 03021, 03022
Container: Plastic bottles and tube packaged in cardboard box.

COMPANY IDENTIFICATION:
KPSS, Inc.
981 Corporate Blvd.
Linthicum Heights, MD 21090-2227

For Information:
During Business hours: (410) 850-7555
24-Hour Emergency Response: (800) 424-9300
(CHEMTREC)

2. COMPOSITION (HAZARDOUS INGREDIENTS):

<table>
<thead>
<tr>
<th>Component A - Perm Base Lotion</th>
<th>COMPONENT</th>
<th>WEIGHT (%)</th>
<th>CAS #</th>
<th>OSHA-PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ammonia</td>
<td>&lt;2.5%</td>
<td>7664-41-7</td>
<td>TWA 50ppm (35 mg/m³)</td>
<td>TWA 25ppm (17 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STEL 35ppm (27 mg/m³)</td>
<td>STEL 35ppm (24 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>Thioglycolic acid</td>
<td>1% - 11%</td>
<td>68-11-1</td>
<td>TWA 1 ppm 4 mg/m³ skin</td>
<td>TWA 1 ppm 3.8 mg/m³ skin</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component B - Neutralizer</th>
<th>COMPONENT</th>
<th>WEIGHT (%)</th>
<th>CAS #</th>
<th>OSHA-PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydrogen Peroxide</td>
<td>2.3%</td>
<td>7722-84-1</td>
<td>TWA 1 ppm 1.4 mg/m³</td>
<td>TWA 1 ppm 1.4 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Phosphoric Acid</td>
<td>&lt;0.1%</td>
<td>7664-38-2</td>
<td>TWA 1 ppm STEL 3 mg/m³</td>
<td>TWA 1 ppm STEL 3 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component C - Activator - Not contained in 03021 (Resistant)</th>
<th>COMPONENT</th>
<th>WEIGHT (%)</th>
<th>CAS #</th>
<th>OSHA-PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Glyceryl Thioglycolate</td>
<td>80%</td>
<td>30618-84-9</td>
<td>none established</td>
<td>none established</td>
</tr>
<tr>
<td></td>
<td>Glycerin</td>
<td>18.5-19.5%</td>
<td>56-81-8</td>
<td>TWA 10 ppm</td>
<td>TWA 10 ppm</td>
</tr>
<tr>
<td></td>
<td>Thioglycolic acid</td>
<td>0.5-1.5%</td>
<td>68-11-1</td>
<td>TWA 1 ppm 4 mg/m³ skin</td>
<td>TWA 1 ppm 3.8 mg/m³ skin</td>
</tr>
</tbody>
</table>
3. **HAZARDS IDENTIFICATION:**

**EMERGENCY OVERVIEW:**

Clear liquid with a strong characteristic ammonia like odor, harmful if swallowed, causes eye irritation, may be irritating to the skin or respiratory system. Component B is an oxidizer which releases oxygen during fire.

**POTENTIAL HEALTH EFFECTS:**

**EYE:** This material causes severe eye irritation which may result in permanent eye injury.

**SKIN:** Possible skin irritant. Can cause sensitization or dermatitis upon prolonged contact with unprotected and stressed skin. Neutralizers can result in defatting and drying of the skin.

**INHALATION:** Repeated or prolonged inhalation may be harmful.

**INGESTION:** This material is toxic and is harmful if swallowed.

4. **FIRST AID:**

**EYES:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined by medical personnel immediately.

**SKIN:** Rinse immediately with plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**INHALATION:** This product is a potential respiratory system irritant. If exposed to excessive levels of vapors, remove to fresh air and get medical attention if cough or other symptoms develop.

**INGESTION:** If swallowed, call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. *Note:* Component C (Activator) is regulated as a toxic material by ingestion.

5. **FIRE FIGHTING MEASURES:**

Flashpoint and Method: >120°C (248°F) Fisher Tag, closed cup - Activator. Other components are not combustible.

Flammable Limits: n/a

Automatic Ignition Temp: n/a

**General Hazard:** Neutralizer is an oxidizing material. Product decomposes to oxygen which may intensify fire in combustible surroundings.

**Fire-Fighting Media:** Water, dry chemical, carbon dioxide, foam.

**Special Fire-Fighting Equipment:** Respiratory and eye protection required for fire-fighting personnel. Full protective equipment (bunker gear) and a self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires which may easily be extinguished with a portable fire extinguisher, use of any SCBA may not be required.

**Hazardous Combustion Products:** Can release oxygen and toxic vapors of Hydrogen sulfide and Sulfur Oxides during decomposition.

6. **ACCIDENTAL RELEASE MEASURES:**
Small spills should be mopped up and flushed with plenty of water. Large spills are to be diked or otherwise contained to prevent spreading. Absorb spill with an inert material (e.g., dry sand or earth). DO NOT use combustible materials such as sawdust. Material is to be disposed of in accordance with Section 13. Spilled liquid will present a slipping hazard, and personnel should be cautious during cleanup.

7. **HANDLING AND STORAGE:**

**Storage Temperature:** Ambient  
**Storage Pressure:** Atmospheric

**General:** Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Keep container closed. Promptly clean up any spillage. Store in a cool, well ventilated area away from incompatible materials. (see stability and reactivity, Section 10). Keep away from excessive heat or freezing temperatures.

**Specific requirements:** Component B - Neutralizers, Keep container closed. Loosen closure cautiously, contents may develop pressure upon prolonged storage. Protect material from direct sunlight.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION:**

**RESPIRATORY PROTECTION:** Use in well ventilated area. For most conditions, no respiratory protection should be needed. There are no established exposure limits for this product as a whole. Wear a NIOSH approved respirator in situations where there may be potential for excessive airborne exposure for chemicals listed in Section 2.

**SKIN PROTECTION:** Use impervious gloves such as neoprene.

**EYE PROTECTION:** If there is potential for direct eye contact with this product during liquid transfer operation, personnel should wear safety glasses or goggles.

**ENGINEERING CONTROLS:** Local exhaust ventilation may be necessary to control any air contaminants.

9. **PHYSICAL AND CHEMICAL PROPERTIES:**

<table>
<thead>
<tr>
<th>Component A</th>
<th>Component B</th>
<th>Component C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perm. Base Lotion</td>
<td>Neutralizer</td>
<td>Activator</td>
</tr>
<tr>
<td><strong>Appearance:</strong> Clear solution</td>
<td><strong>Vapor Pressure:</strong> n/d</td>
<td>Percent Volatile: n/a</td>
</tr>
<tr>
<td><strong>Odor:</strong> Ammonia</td>
<td><strong>Solubility:</strong> complete</td>
<td>Molecular Weight: 166.21</td>
</tr>
<tr>
<td><strong>Odor Threshold Level:</strong> n/d</td>
<td><strong>Specific Gravity:</strong> 1.01</td>
<td></td>
</tr>
<tr>
<td><strong>Physical State:</strong> Liquid</td>
<td><strong>Viscosity:</strong> n/a</td>
<td></td>
</tr>
<tr>
<td><strong>pH:</strong> 8.9 TO 9.9</td>
<td><strong>Percent Volatile:</strong> n/a</td>
<td></td>
</tr>
<tr>
<td><strong>Vapor Pressure:</strong> n/d</td>
<td><strong>Molecular Weight:</strong> n/d</td>
<td></td>
</tr>
<tr>
<td><strong>Solubility:</strong> complete</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specific Gravity:</strong> 1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Viscosity:</strong> n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Percent Volatile:</strong> n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Molecular Weight:</strong> n/d</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n/d = not determined

<table>
<thead>
<tr>
<th>Appearance: Water white</th>
<th>Odor: strong unpleasant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State:</strong> Liquid</td>
<td></td>
</tr>
<tr>
<td><strong>Odor Threshold Level:</strong> n/d</td>
<td></td>
</tr>
<tr>
<td><strong>pH:</strong> 2.4 in 50% H2O</td>
<td></td>
</tr>
<tr>
<td><strong>Vapor Pressure:</strong> n/d</td>
<td></td>
</tr>
<tr>
<td><strong>Solubility:</strong> complete</td>
<td></td>
</tr>
<tr>
<td><strong>Specific Gravity:</strong> 1.295 @ 45C</td>
<td></td>
</tr>
<tr>
<td><strong>Viscosity:</strong> 150 cps</td>
<td></td>
</tr>
</tbody>
</table>
10. **STABILITY AND REACTIVITY:**

   **Perm Solution and Activator**
   
   **Stability (Conditions to Avoid):** Oxidizing material; avoid exposure to heat.
   
   **Incompatibility (Specific Material to Avoid):** Strong alkali, sodium bromate, hydrogen peroxide, heavy metals, i.e. metallic bowls and stirrers.
   
   **Hazardous Decomposition Products:** Hydrogen sulfide, Sulfur Oxides, and Ammonia.
   
   **Hazardous Polymerization:** Will not occur.

   **Neutralizer**
   
   **Stability (Conditions to Avoid):** This material is an oxidizing material; avoid exposure to heat, contamination, and direct sunlight.
   
   **Incompatibility (Specific Material to Avoid):** Reducing agents, heavy metals, rust, dirt.
   
   **Hazardous Decomposition Products:** Oxygen which supports combustion during fire.
   
   **Hazardous Polymerization:** Will not occur.

11. **TOXICOLOGICAL INFORMATION:**

    None available for product as a whole.
    
    For detailed toxicological information for any chemical used in this mixture, write to the address listed in Section 1 of this MSDS.

12. **ECOLOGICAL INFORMATION:**

    No data are available on the adverse effects of this material on the environment. Based on the chemical composition, it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities.

13. **DISPOSAL CONSIDERATIONS:**

    This product is not considered to be a hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. Please be advised, however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

    (Note: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate).

14. **TRANSPORT INFORMATION:**

    D.O.T. Shipping Name: Toxic Liquids, organic, n.o.s.(Glyceryl Thioglycolate)
    
    D.O.T. Hazard Class:  6.1, PGIII, UN 2810
    
    NOTE: May be shipped as consumer commodity ORM-D when packaging meets that definition.
15. REGULATORY INFORMATION:

**TSCA (Toxic Substance Control Act):** This product is not on the TSCA Inventory list as its intended use is for cosmetic purposes, however this product has met all of the requirements of the Federal Food, Drug, and Cosmetic Act.

**CERCLA (Comprehensive Response Compensation and Liability Act):** This product contains Phosphoric Acid and Ammonia which are both Reportable Quantity (RQ) substances. Due to the low concentration contained in this product and the nature of its packaging, this quantity cannot be achieved.

**EPA, SARA Title III (Superfund Amendments and Reauthorization Act) Chemical Listing:**
- Section 302 Extremely Hazardous Substances: None
- Section 304 CERCLA Hazardous Substances: None
- Section 312 Hazard Class: Acute: Yes, Chronic: No, Fire: No, Pressure: No, Reactive: No
- Section 313 Toxic Chemicals: None present or none present in regulated quantities

16. OTHER INFORMATION:

**LABEL INFORMATION:**

All containers of this product must be labeled in accordance with FDA requirements. Some box perms may contain additional components. When included in packaging, please consult specific MSDS for these materials. Hazard communication labels are not required for this product, however the appropriate hazard ratings are as follows:

**HMIS:**
- Health: 3
- Flammability: 1
- Reactivity: 0

**NFPA:**
- No data found.

**Personal Protection Index:** X (to be specified by the user depending on use conditions)

All information on this MSDS should be passed on to appropriate employees and downstream users. To the best of our knowledge, the information contained herein is accurate. However, neither KPSS, Inc. Inc. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. No warranty is implied. Since conditions of use are beyond the control of KPSS, Inc. user assumes all risks and responsibility.

Prepared By:     Date of last revision:
Winslow Sully     04/05/97
D. Nogal     5/1/05