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<td><strong>Amplify Thick Boost Gel</strong></td>
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<td><strong>Amplify Thicklift Liquid Volumizer</strong></td>
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<td><strong>Amplify Volumizing Root Lifter</strong></td>
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<td></td>
<td><strong>Biolage Cera-Heat Thermal-Active Repair Cream</strong></td>
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<td><strong>Biolage Cera-Heat Thermal-Active Repair Gloss</strong></td>
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<td><strong>Biolage Colorcaretherapie Shine Shake Spray</strong></td>
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<td><strong>Biolage Colorcaretherapie Shine Shake Spray</strong></td>
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<td></td>
<td><strong>Biolage Colortherapie Shielding Shine Mist</strong></td>
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<td><strong>Biolage Complete Control Hair Spray</strong></td>
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<td><strong>Biolage Curl Defining Elixir</strong></td>
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<td></td>
<td><strong>Biolage Finish Spritz</strong></td>
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<td><strong>Biolage Freeze Fix Hairspray</strong></td>
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<td><strong>Biolage Gelee</strong></td>
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<td><strong>Biolage Hydratherapie Hydra Seal Softening Mist</strong></td>
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<td><strong>Biolage Sculpting Jelly</strong></td>
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<td><strong>Biolage Smoothing Shine Milk</strong></td>
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<td><strong>Biolage Smooththerapie Deep Smoothing Serum</strong></td>
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<td><strong>Biolage Smooththerapie Smoothing Gel</strong></td>
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<td><strong>Curl Life All-Day Reactivator</strong></td>
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<td><strong>Curl Life Body-Shaping Foam</strong></td>
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<td><strong>Curl Life Contouring Cream</strong></td>
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<td><strong>Design Pulse Beach Clay</strong></td>
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<td><strong>Design Pulse Fiber Shuffle</strong></td>
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<td><strong>Design Pulse Fiber Shuffle</strong></td>
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<td><strong>Design Pulse Get Action Wax</strong></td>
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<td><strong>Design Pulse Go Big</strong></td>
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<td></td>
<td><strong>Design Pulse Iron In</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Design Pulse Mega Dust</strong></td>
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<td><strong>Design Pulse Mix In Shine</strong></td>
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<td>Product Category</td>
<td>Product</td>
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<tr>
<td>----------------------------------</td>
<td>----------------------------------------------</td>
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<tr>
<td>MATRIX</td>
<td>Design Pulse Play Back</td>
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<td></td>
<td>Design Pulse Rock 'n Hold</td>
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<td></td>
<td>Design Pulse Thermo Glide</td>
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<td>Logics Color DNA</td>
<td>Blow Sculpt Fine Cream</td>
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<td>Logics Color DNA</td>
<td>Creative Fix Spray</td>
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<td>Logics Color DNA</td>
<td>Densation Liquid Volume</td>
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<td>Full Scale Root Finisher</td>
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<td>Gelastic Gel Cream</td>
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<td>Logics Color DNA</td>
<td>Glossiance Shine Serum</td>
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<td>Logics Color DNA</td>
<td>Materialize Texturizing Spray</td>
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<td>Matrix Men Clean Shine Pomade</td>
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<td>Matrix Men Energel Flexible Styling Gel</td>
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<td>Matrix Men Firm Fix Gel</td>
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<td>Matrix Men Switch Up Gel-wax</td>
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<td>Sleek Blow Down Extreme Crème</td>
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<tr>
<td>Sleek Blow Down Lite Lotion</td>
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<tr>
<td>Sleek Iron Smoother</td>
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<td>Sleek Sealing Serum</td>
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<td>Solutionist Proforma Hair Spray</td>
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<td>Solutionist Vital Control Hair Spray</td>
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<td>Total Results Amplify Hairspray</td>
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<td>Total Results Amplify Wonder Boost Root Lifter</td>
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<td>Total Results Curl Contouring Lotion</td>
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<td>Total Results Curl Super DeFrizzer Gel</td>
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<td>Total Results Proforma Hairspray</td>
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<tr>
<td>Total Results Sleek Blow Down Crème</td>
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<tr>
<td>Total Results Sleek Iron Smoother</td>
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<td>Total Results Sleek Silk Wonder Oil</td>
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<td>Vavoom Design Pulse Loosely Defined</td>
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<td>Vavoom Design Pulse Messy Couture</td>
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<td>Vavoom Design Pulse Switch Flicks</td>
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<td>Vavoom Extra Full Freezing Spray</td>
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<td>Vavoom Gold Heat Blow-In Control</td>
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<td>Vavoom Gold Heat Blow-In Volume</td>
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<td>Vavoom Gold Heat Iron-In Control</td>
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<td>Vavoom Gold Heat Iron-In Volume</td>
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<td>Vavoom Height Of Glam Volumizing Foam</td>
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<td>Vavoom Hold My Body Forming Gel</td>
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<td>Vavoom Shape Maker</td>
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<td>Vavoom Shape Maker Extra-Hold</td>
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<tr>
<td>Vavoom Take Me Higher Root Riser</td>
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Texture - Perms - Straighteners

Biolage Acid Wave - Activator 99-024
<table>
<thead>
<tr>
<th>Product Category</th>
<th>Product</th>
<th>MSDS</th>
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<tr>
<td></td>
<td>Biolage Acid Wave - Waving Formula</td>
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<td></td>
<td>Biolage Acid Wave - Neutralizer</td>
<td>99-027</td>
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<td></td>
<td>Biolage Color Wave - Activator</td>
<td>99-024</td>
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<tr>
<td></td>
<td>Biolage Color Wave - Waving formula</td>
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<tr>
<td></td>
<td>Biolage Color Wave - Neutralizer</td>
<td>99-027</td>
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<tr>
<td></td>
<td>Butter Blend Relaxer - Normal</td>
<td>99-006</td>
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<tr>
<td></td>
<td>Butter Blend Relaxer - Mild</td>
<td>99-006</td>
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<td></td>
<td>Opti Care Extra-Conditioning Alkaline Wave - Waving Formula</td>
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<td></td>
<td>Opti Care Extra-Conditioning Alkaline Wave - Interim Treatment</td>
<td>NON-HAZ</td>
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<td></td>
<td>Opti Care Extra-Conditioning Alkaline Wave - Neutralizer</td>
<td>99-027</td>
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<td></td>
<td>Opti Color - Color Treated formula</td>
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<td></td>
<td>Opti Color - Highlighted formula</td>
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<tr>
<td></td>
<td>Opti Color - Interim treatment</td>
<td>NON-HAZ</td>
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<tr>
<td></td>
<td>Opti Color - Neutralizer</td>
<td>99-027</td>
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<td></td>
<td>Opti Smooth - Smoothing treatment - normal</td>
<td>99-025</td>
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<tr>
<td></td>
<td>Opti Smooth - Smoothing treatment - resistant</td>
<td>99-025</td>
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<td>Opti Smooth - Smoothing treatment - sensitized</td>
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<td>Opti Smooth - Neutralizing lotion</td>
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<td>Opti Smooth - Pre-treatment</td>
<td>NON-HAZ</td>
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<td>Opti Smooth - Post-treatment</td>
<td>NON-HAZ</td>
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<td>Opti Thermic Self-Heating Exothermic Wave - Thermal Equalizer</td>
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<td>Opti Thermic Self-Heating Exothermic Wave - Neutralizer</td>
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<td>Opti Thermic Self-Heating Exothermic Wave - Interim treatment</td>
<td>NON-HAZ</td>
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<td>Opticurl Extra Body Acid Wave - Waving Lotion</td>
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<td>Opticurl Extra Body Acid Wave - Activator</td>
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<td>Opticurl Variable Action Acid Wave - Neutralizer</td>
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<td>Opticurl Variable Action Acid Wave - Waving Lotion</td>
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<tr>
<td></td>
<td>Opticurl Variable Action Acid Wave - Activator</td>
<td>99-024</td>
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</tbody>
</table>
IDENTITY

Products Containing Semi-Volatile or Emulsified Silicones

Section I

Manufacturer’s Name
L’Oreal USA Products, Inc.

Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue

Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)

Telephone Number For Information
(732) 499-2746

Date Prepared
February 6, 2006 (replaces 10-18-04)

Signature of Preparer (optional)
C. Jennings

Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components (Specific Chemical Identity/Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV Recommended</th>
<th>Other Limits (optional)</th>
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</thead>
<tbody>
<tr>
<td>Cyclomethicone</td>
<td>None</td>
<td></td>
<td>&lt;60%</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>None</td>
<td>&lt;90%</td>
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</tr>
<tr>
<td>Cyclohexasiloxane</td>
<td>None</td>
<td>&lt;60%</td>
<td></td>
</tr>
<tr>
<td>Dimethicone</td>
<td>None</td>
<td>&lt;10%</td>
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<tr>
<td>Dimethicone Copolyol</td>
<td>None</td>
<td>&lt;5%</td>
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</table>

Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Boiling Point (Liquids)</td>
<td>140-200 °F</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>~1</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point (Solids)</td>
<td>125-145°F</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
</tbody>
</table>

Appearance and Odor
1. White to off-white cream/lotion with a pleasant odor. 2. Semi-viscous clear to translucent liquid with a faint odor. 3. Silicone containing antiperspirant/deodorant sticks, lipsticks, and eyeliners.

Section IV - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Flash Point (Method Used)</td>
<td>141°F - 200°F</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>Cyclomethicone</td>
</tr>
<tr>
<td>LEL</td>
<td>0.5%</td>
</tr>
<tr>
<td>UEL</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray may be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of combustible materials. For manufacturing, minimize airborne vapor levels through engineering controls.
### Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>Avoid heat, fire, and other sources of ignition.</td>
</tr>
<tr>
<td>Stable</td>
<td>X</td>
</tr>
</tbody>
</table>

**Incompatibility (Materials to Avoid)**

Oxidizing agents and nitric acid.

**Hazardous Decomposition or Byproducts**

Silicon dioxide, carbon monoxide, carbon dioxide.

### Section VI - Health Hazard Data

<table>
<thead>
<tr>
<th>Route(s) of Entry:</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Not likely.</td>
</tr>
</tbody>
</table>

**Health Hazards (Acute and Chronic)**

May cause eye irritation. Although product is non-toxic, ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. No adverse effects would be expected following dermal exposure.

**Carcinogenicity:**

<table>
<thead>
<tr>
<th>NTP?</th>
<th>IARC Monographs?</th>
<th>OSHA Regulated?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Signs and Symptoms of Exposure**

Possible eye irritation; temporary gastrointestinal disturbance and diarrhea.

**Medical Conditions Generally Aggravated by Exposure**

None known.

**Emergency and First Aid Procedure**

If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. If swallowed, drink one or two glasses of water or milk and consult a physician. If on skin, wash with soap and water.

### Section VII - Precautions for Safe Handling and Use

**Steps to be Taken in Case Material is Released or Spilled**

Eliminate all sources of ignition. Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other absorbants. Containerize spent absorbants in suitable containers for disposal. Wash spill area with detergent solution as necessary.

**Waste Disposal Method**

Products containing semi-volatile or emulsified silicones are not regulated as hazardous wastes when intended for disposal. However, incineration is the recommended method of treatment and disposal for such products.

**Precautions to be Taken in Handling and Storage**

Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

**Other Precautions**

For external use only. Use only as directed.

### Section VIII - Control Measures

For routine manufacturing/filling operations, none generally required. For spills, wear an approved self-contained breathing apparatus.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Explosion-Proof</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical(General)</td>
<td>Explosion-Proof</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>
Protective Gloves

Rubber or plastic gloves for bulk quantities.

Other Protective Clothing or Equipment

Safety glasses and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Combustible
DOT classification:

Bulk - Combustible Liquids, N.O.S.
(cyclomethicone/cyclopentasiloxane/cyclohexasiloxane)
NA 1993 PG III

Finished Product - Not regulated
Material Safety Data Sheet
May be used to comply with
OSHA’s Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

IDENTITY
Liquid Petroleum-Based Cosmetics and
Cleansers

Section I
Manufacturer’s Name
L’Oreal USA Products, Inc.
Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)

Telephone Number For Information
(732) 499-2745

Date Prepared
April 6, 2004

Signature of Preparer (optional)
GCD

Section II - Hazardous Ingredients/Identity Information

<table>
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<tr>
<th>Hazardous Components (Specific Chemical Identity/Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits Recommended</th>
<th>% (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Distillates</td>
<td>400 ppm</td>
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<td>35-75%</td>
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Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value(s)</th>
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</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>175-200°F</td>
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<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>~0.9</td>
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<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point</td>
<td>50-130°F</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Water thin to viscous liquid with a petroleum-like odor.</td>
</tr>
</tbody>
</table>

Section IV - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value(s)</th>
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<tbody>
<tr>
<td>Flash Point (Method Used)</td>
<td>80-140°F (closed cup)</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>Petroleum Distillates</td>
</tr>
<tr>
<td>LEL</td>
<td>1.0%</td>
</tr>
<tr>
<td>UEL</td>
<td>7.0%</td>
</tr>
</tbody>
</table>

Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray should be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of flammable materials. For manufacturing, minimize airborne vapor levels through engineering controls.
Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>Avoid heat, fire, flame, and other sources of ignition.</td>
</tr>
<tr>
<td>Stable</td>
<td>X</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)
Oxidizing agents and nitric acid.

Hazardous Decomposition or Byproducts
None known.

Hazardous Polymerization

<table>
<thead>
<tr>
<th>May Occur</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Not Occur</td>
<td>X</td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

<table>
<thead>
<tr>
<th>Route(s) of Entry</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Not likely.</td>
</tr>
</tbody>
</table>

Health Hazards (Acute and Chronic)
Product may cause mild, transient irritation of skin and eyes. May be harmful if swallowed or inhaled for prolonged periods.

Carcinogenicity:
NTP? IARC Monographs? OSHA Regulated?
No No No

Signs and Symptoms of Exposure
Prolonged inhalation or ingestion may produce signs and symptoms typical of exposures to hydrocarbon solvents. Exposure of skin and/or eyes may cause mild, transient irritation.

Medical Conditions Generally Aggravated by Exposure
None known.

Emergency and First Aid Procedure

If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get medical attention. If affected by inhalation, move to fresh air. Give artificial respiration and oxygen if indicated. Get medical attention. In case of overexposure of eyes, rinse with plenty of water. For skin, wash with soap and water.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled
Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite, spill pillows, or other suitable absorbant. Containerize spent absorbants in UN specification drums for disposal. Wash spill area with detergent solution as necessary.

Waste Disposal Method
Petroleum-based cosmetics and cleansers are ignitable (D001) RCRA hazardous wastes when intended for disposal. Incineration is the required method of treatment and disposal.

Precautions to be Taken in Handling and Storage
Avoid heat, fire, flame, and other sources of ignition. Avoid oxidizing agents and nitric acid. Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible.

Other Precautions
For external use only. Use only as directed.
**Section VIII - Control Measures**

**Respiratory Protection (Specify Type)**

For manufacturing/filling, wear a NIOSH-approved organic vapor respirator if petroleum distillate TLV is exceeded. For spills, wear an approved self-contained breathing apparatus.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Explosion-Proof</th>
<th>Special</th>
<th>Mechanical(General)</th>
<th>Explosion-Proof</th>
<th>Other</th>
</tr>
</thead>
</table>

**Protective Gloves**

Rubber gloves for bulk quantities.

**Other Protective Clothing or Equipment**

Safety glasses and protective clothing for bulk quantities.

**Work/Hygienic Practices**

OSHA hazard classification: Flammable/combustile, toxic

DOT classifications:

- Bulk - Flammable liquids, N.O.S. (petroleum distillates) 3 UN 1993 PGIII
- Finished Product - Consumer Commodity, ORM-D.
Material Safety Data Sheet

May be used to comply with OSHA’s Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements

IDENTITY
Sodium Hydroxide Based Hair Relaxers

Section I

Manufacturer’s Name
L’Oreal USA Products, Inc.

Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue

Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)

Telephone Number For Information
(732) 499-2745

Date Prepared
December 18, 2003

Signature of Preparer (optional)
GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity/Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits Recommended | % (optional)
---|---|---|---|---
Sodium Hydroxide | 2mg/m³ | | | <2.5%

Section III - Physical/Chemical Characteristics

Boiling Point
~150°F

Specific Gravity (H2O = 1)
~1

Vapor Pressure (mm Hg)
N/A

Melting Point
N/A

Vapor Density (AIR = 1)
N/A

Evaporation Rate (Butyl Acetate = 1)
N/A

Solubility in Water
Miscible

pH = 13-14

Appearance and Odor
White to off-white cream with a pleasant odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)
>200°F (closed cup)

Flammable Limits
None

LEL
N/A

UEL
N/A

Extinguishing Media
Not applicable.

Special Fire Fighting Procedures
Not applicable.

Unusual Fire and Explosion Hazards
Not applicable.
### Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
<th>X</th>
</tr>
</thead>
</table>

**Incompatibility (Materials to Avoid)**
Avoid strong acids and organic compounds.

**Hazardous Decomposition or Byproducts**
(Thermal decomposition) Sodium oxide, carbon monoxide, carbon dioxide.

<table>
<thead>
<tr>
<th>Hazardous Polymerization</th>
<th>May Occur</th>
<th>Conditions to Avoid</th>
<th>X</th>
<th>None known.</th>
</tr>
</thead>
</table>

### Section VI - Health Hazard Data

**Route(s) of Entry:**
- Inhalation?: Not likely
- Skin?: Yes
- Ingestion?: Not likely

**Health Hazards (Acute and Chronic)**
Danger: Corrosive. May cause burns of the skin, eyes, and other mucous membranes. Harmful or fatal if swallowed.

**Carcinogenicity:**
- NTP?: No
- IARC Monographs?: No
- OSHA Regulated?: No

**Signs and Symptoms of Exposure**
Contact with skin, eyes, and other mucous membranes will produce chemical burns which, if not promptly treated, may be accompanied by deep ulceration, necrosis, and scarring. Ingestion may produce burns, ulceration, and/or perforation of the alimentary canal followed by shock, circulatory collapse, and possibly death.

**Medical Conditions Generally Aggravated by Exposure**
Preexisting dermatitis of the scalp and/or skin may be exacerbated by contact with this product.

**Emergency and First Aid Procedure**
If swallowed and if victim is conscious, immediately rinse mouth with water, then drink one or two glasses of water or milk. Call a physician, hospital emergency room, or poison control center immediately. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person. If in eyes or on skin, flush with water for at least 15 minutes. Call a physician, hospital emergency room or poison control center immediately. Get medical attention.

### Section VII - Precautions for Safe Handling and Use

**Steps to be Taken in Case Material is Released or Spilled**
Spills of this product should be diked and contained, treated with dilute acetic acid or sodium dihydrogen phosphate to neutralize the excess base, and flushed with excess water to the sanitary sewer system. Spilled material may also be solidified and placed in appropriate UN specification drums for disposal.

**Waste Disposal Method**
This product is an EPA corrosive (D002) hazardous waste when intended for disposal. Accordingly, disposal should be undertaken at a hazardous waste facility by neutralization, incineration, and/or other treatment and disposal in accordance with RCRA regulations.

**Precautions to be Taken in Handling and Storage**
Avoid contact with eyes and skin. Do not taste, swallow, or inhale. Store in a cool location away from strong acids and organic compounds.

**Other Precautions**
For external use only. Use only as directed. Keep out of reach of children.
Section VIII - Control Measures

Respiratory Protection (Specify Type)
For manufacturing/filling, wear a NIOSH-approved respirator if constituent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Generally Acceptable</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical(General)</td>
<td>Recommended</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Protective Gloves
Rubber or neoprene gloves.

Other Protective Clothing or Equipment
Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices
OSHA hazard classification: Corrosive
DOT classification: Bulk and 4 lb. Tubs - Corrosive solid, basic, organic, N.O.S. (Sodium Hydroxide) 8 UN 3263 PGII
Finished Product (other than 4 lb. tubs) - Consumer Commodity, ORM-D.
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
1-800-535-5053 (International: 352-323-3500)

For further information: 732-499-2741

Poison Control Number: 412-390-3326

Product Name: Water-Based Shampoos and Body Cleansers

Recommendations on use: For cleansing of hair and/or body.

Restrictions on use: For external use only. Use only as directed. Products which are labeled “For Adult Use Only” should not be used by children. Bath products intended for children should not be used for prolonged periods due to possible skin and/or urinary tract irritation with immersion.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING

Eye Irritation – Category 2A

Causes serious eye irritation

- Wash hands and face thoroughly after handling.
- Wear eye protection/face protection; eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield).

This material is considered hazardous by the US Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200)

General Precautionary Statements: Keep out of reach of children. Read label before use. Discontinue use if rash, redness, or itching occurs.

Additional Precautionary Statements for Immersion Products: Excessive use or prolonged exposure may cause irritation to urinary tract. Avoid contact with eyes.

Hazards Not Otherwise Classified: Prolonged contact may cause irritation of skin and mucous membranes. May cause gastrointestinal disturbance and diarrhea if ingested.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>151-21-3</td>
<td>≤ 40%</td>
</tr>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>9004-82-4</td>
<td>≤ 30%</td>
</tr>
</tbody>
</table>

Issue Date: January 18, 2013
SECTION 4: FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical attention. Remove all contaminated clothing and launder before reuse. If irritation of the urinary tract should occur following use of a bath product, consult a physician.

IF INHALED: Remove individual to fresh air and keep in a rest position comfortable for breathing. Call a poison control center if you feel unwell.

IF SWALLOWED: Immediately call a poison control center or consult a physician. Do not induce vomiting. Never give anything by mouth to an unconscious individual.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Most common symptoms include irritating properties to eyes, skin, and/or exposed mucous membranes.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

SUITABLE EXTINGUISHING MEDIA: Product is not flammable. Selection of a fire extinguisher should be appropriate to address the location of the fire and other materials involved.

Notes for those trained to participate in an emergency:

SPECIFIC FIRE AND EXPLOSION HAZARDS: Not known

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Firefighters should wear self-contained breathing apparatus and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and sulfur.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions: Consult trained response personnel for clean-up of large spills or locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Sections 2, 5, 7 and 8 of this document should be consulted upon use of material, to become knowledgeable of the material's hazards and how to control associated risks.

If the location is not hazardous and only a small amount of material is released: Control the spill using absorbent pads, paper towels or sponges while wearing the protective equipment as noted below. Wash area completely with water. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.
PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, safety glasses/goggles, protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but may used depending upon the size of the spill and occupational exposure limits. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Dike and contain any free liquid then absorb on vermiculite or spill pillows/pads. Solidified materials should be placed in sturdy containers for disposal. Wash area completely with water. Take care to avoid contact with wet surfaces or walkways that may become slick when product is present. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:
Do not eat, drink, or smoke while working with hazardous materials. Avoid contact with eyes, clothing, and prolonged contact with skin (other than areas of application). Refer to Section 8 for personal protective equipment selection. Wash hands and face thoroughly after handling. Do not expose to heat and flame.

Maintain a safe work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: None known.

Conditions for safe storage of unpackaged product (manufacturing environment): Store in the original tightly capped containers away from sunlight and other heat sources. Keep in a cool and well-ventilated area. Keep container closed when not in use. Store on spill pallets or in other locations where spill containment will be easily accessible.

Keep away from open drains and protect from releases to the environment.

Storage precautions for packaged product – see consumer packaging. No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>Reference</th>
<th>TWA</th>
<th>STEL/CEILING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td>No OEVs have been</td>
<td>OSHA PEL</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>established for noted</td>
<td>ACGIH TLV</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>constituents.</td>
<td>NIOSH REL</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be considered to control nuisance odors associated with product fragrance.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product - Local Exhaust: consistent with nuisance odor removal. Mechanical (general): consistent with nuisance odor removal.
PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling of large quantities of material, safety glasses with side shields/goggles are recommended. Face shields may be required where possibility of a large splash to the face could occur.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered to control nuisance odors. Ensure that the respirator meets current local occupational health and safety standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPEARANCE</strong></td>
<td>Colored, transparent or opaque, semi-viscous liquid</td>
</tr>
<tr>
<td><strong>ODOR</strong></td>
<td>Pleasant odor</td>
</tr>
<tr>
<td><strong>ODOR THRESHOLD</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>3.5 – 9.0</td>
</tr>
<tr>
<td><strong>MELTING/FREEZING POINT</strong></td>
<td>F: ~32 C: ~0</td>
</tr>
<tr>
<td><strong>BOILING POINT</strong></td>
<td>F: ~212 C: ~100</td>
</tr>
<tr>
<td><strong>FLASH POINT</strong></td>
<td>F: &gt;200 C: &gt;93.4</td>
</tr>
<tr>
<td><strong>METHOD USED</strong></td>
<td>Closed cup</td>
</tr>
<tr>
<td><strong>EVAPORATION RATE</strong></td>
<td>&lt;1 (Butyl acetate = 1)</td>
</tr>
<tr>
<td><strong>FLAMMABILITY</strong></td>
<td>Not Applicable to Liquids</td>
</tr>
<tr>
<td><strong>FLAMMABLE LIMITS IN AIR</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>VAPOR PRESSURE (mmHg)</strong></td>
<td>@ F: N/A C: N/A</td>
</tr>
<tr>
<td><strong>VAPOR DENSITY (AIR = 1)</strong></td>
<td>@ F: N/A C: N/A</td>
</tr>
<tr>
<td><strong>RELATIVE DENSITY (H2O = 1)</strong></td>
<td>~1</td>
</tr>
<tr>
<td><strong>SOLUBILITY IN WATER</strong></td>
<td>Freely soluble</td>
</tr>
<tr>
<td><strong>PARTITION COEFFICIENT</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>AUTOIGNITION TEMPERATURE</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>DECOMPOSITION TEMPERATURE</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>VISCOSITY</strong></td>
<td>Viscous flowing liquid</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Material is not considered reactive under typical handling and storage conditions.

STABILITY: Product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY (MATERIAL TO AVOID): None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and sulfur, hydrocarbons, and/or derivatives.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: May cause gastrointestinal disturbance or diarrhea
INHALATION: None expected

ROUTES OF EXPOSURE: Eyes and skin

SYMPTOMS: Symptoms may include watering, stinging or itching eyes with direct contact. Prolonged contact may cause irritation of skin and mucous membranes. May cause gastrointestinal disturbance and diarrhea if ingested.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) may be exacerbated.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>Route</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat</td>
<td>4,100 mg/kg bw</td>
</tr>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rabbit</td>
<td>&gt; 2,000 mg/kg bw</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate (28.2%)</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat</td>
<td>6,000 mg/kg</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rabbit</td>
<td>ca.600 mg/kg</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt; (4 hr)</td>
<td>Rat</td>
<td>8.67 mg/L</td>
</tr>
<tr>
<td>Coco-Betaine</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat</td>
<td>6.900 mg/kg</td>
</tr>
<tr>
<td>Coco-Betaine</td>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat</td>
<td>&gt;2.0 g/kg</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine (30.6 % Active solution)</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat</td>
<td>4900 mg/kg bw</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine (31% Active solution)</td>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rats/Mice</td>
<td>&gt;2000 mg/kg</td>
</tr>
<tr>
<td>Disodium Cocamphodiacetate</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rats/Mice</td>
<td>&gt;5.0 to 16.60 g/kg</td>
</tr>
<tr>
<td>Disodium Cocamphodiacetate</td>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rats/Mice</td>
<td>&gt;10.0 ml/kg</td>
</tr>
<tr>
<td>Sodium Lauroyl Sarcosinate</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rats</td>
<td>4.2 - 5 mg/kg</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfoacetate</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rats</td>
<td>5,750 mg/kg</td>
</tr>
<tr>
<td>Disodium Laureth Sulfo succinate (40%)</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rats</td>
<td>&gt;2,000 mg/kg</td>
</tr>
<tr>
<td>Disodium Laureth Sulfo succinate (30-40%)</td>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rabbits</td>
<td>&gt;2,000 mg/kg</td>
</tr>
<tr>
<td>Cocamide Mea</td>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Mice</td>
<td>&gt;10 g/kg</td>
</tr>
<tr>
<td>Cocamide Mea</td>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rabbits</td>
<td>&gt;2 g/kg</td>
</tr>
</tbody>
</table>
Skin Corrosion/Irritation:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>Not Irritating: 5% - 5.6%; Minimally Irritating: 6 - 10%; Severely Irritating: &gt; 25% (Rat)</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>Slightly – Moderately Irritating: 0.5% - 10%; Skin Corrosion - Severe Irritation: 10% - 30% (Rat)</td>
</tr>
<tr>
<td>Coco-Betaine</td>
<td>Not Irritating: 7.5%; Slightly Irritating: 15%; Mildly Irritating: 30% (Rat); Not Irritating: 6.0% (Human)</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>Slightly irritating: 10% (Rat)</td>
</tr>
<tr>
<td>Disodium Cocamphodiacetate</td>
<td>Slightly irritating: 10% (Human)</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Not Irritating: 3%</td>
</tr>
</tbody>
</table>

Sodium Laureth Sulfate:
- Not Irritating: 5% - 5.6%
- Minimally Irritating: 6 - 10%
- Severely Irritating: > 25% (Rat)

Sodium Lauryl Sulfate:
- Slightly – Moderately Irritating: 0.5% - 10%
- Skin Corrosion - Severe Irritation: 10% - 30% (Rat)

Coco-Betaine:
- Not Irritating: 7.5%
- Slightly Irritating: 15%
- Mildly Irritating: 30% (Rat)
- Not Irritating: 6.0% (Human)

Cocoamidopropyl Betaine:
- Slightly irritating: 10% (Human)

Disodium Cocamphodiacetate:
- Slightly irritation: 10% (Human)

Sodium Lauryl Sulfosuccinate:
- Not Irritating: 3%

Cocoamidopropyl Betaine:
- Slightly irritating: 10% (Human)

Disodium Cocamphodiacetate:
- Slightly irritation: 10% - 12%

Sodium Lauryl Sulfosuccinate:
- Irritating: 10%; Eye Damage: 25% (Rabbit)
- Irritating after prolonged contact

Serious Eye Damage/Irritation:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>Mildly Irritating: 1.3 – 7.5%; Moderately Irritating: 10 – 17.5%; Severely Irritating: &gt;20% (Rat)</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>Mildly Irritating: 5.1%; Moderately Irritating: 10%; Severely Irritating: 21% (Rat)</td>
</tr>
<tr>
<td>Coco-Betaine</td>
<td>Not Irritating: 4.5% (Rat); Moderately Irritating: 10%, (Rabbit)</td>
</tr>
<tr>
<td>Disodium Cocamphodiacetate</td>
<td>Moderately - Severely Irritating: 10-12%</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Not Irritating: 5%; Slightly Irritating: 10% (Rabbit)</td>
</tr>
<tr>
<td>Sodium Laureth Sulfosuccinate</td>
<td>Possibly Irritating</td>
</tr>
</tbody>
</table>

Respiratory Irritation:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>Causes Respiratory Irritation.</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>15% - 25% - Inhibition of Respiration (Mice and Rabbits)</td>
</tr>
<tr>
<td>Coco-Betaine</td>
<td>Possibly Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Possibly Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Possibly Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Possibly Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Possibly Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Possibly Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Not Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Not Irritating</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Not Irritating</td>
</tr>
</tbody>
</table>

Skin Sensitization:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>Not Sensitizing: 0.1% (Topical Application); Slightly Sensitizing: 0.1% (Intradermal) (Guinea Pig)</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>Possibly sensitizing with repeated contact.</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>Possibly sensitizing with repeated contact.</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>Not Sensitizing: 0.75% (Guinea Pig); Slightly Sensitizing: 0.15% (Intradermal) (Guinea Pig)</td>
</tr>
</tbody>
</table>

COCHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:

<table>
<thead>
<tr>
<th>Component</th>
<th>NOAEL (mg/kg bw/day)</th>
<th>LOAEL (mg/kg bw/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Laureth Sulfate, oral</td>
<td>&gt;225</td>
<td>1,000</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate, oral</td>
<td>100</td>
<td>1,000</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Disodium Cocamphodiacetate, oral</td>
<td>1,660</td>
<td>1,000</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>75</td>
<td>1,000</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>300</td>
<td>1,000</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfosuccinate</td>
<td>&gt; 750</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Issue Date: January 18, 2013  Supersedes Date: April 21, 2009
MUTAGENICITY:

Sodium Laureth Sulfate: A variety of in vitro and in vivo tests have produced negative results.
Sodium Lauryl Sulfate: A variety of in vitro and in vivo tests have produced negative results.
Coco-Betaine: A variety of in vitro tests have produced negative results.
Cocoamidopropyl Betaine: A variety of in vitro tests have produced negative results.
Disodium Cocamphodiacetate: A variety of in vitro tests have produced negative results.
Sodium Lauroyl Sarcosinate: A variety of in vitro and in vivo tests have produced negative results.
Disodium Laureth Sulfosuccinate: A variety of in vitro and in vivo tests have produced negative results.
Cocamide Mea: A variety of in vitro tests have produced negative results.

REPRODUCTIVE TOXICITY

Sodium Laureth Sulfate: NOAEL > 3%; 300 mg/kg/day. No adverse effects after 0.1% solutions.
Sodium Lauryl Sulfate: No adverse effect was seen on fertility.
Coco-Betaine: No adverse effect was seen on fertility.
Cocoamidopropyl Betaine: No adverse effect was seen on fertility.
Sodium Lauroyl Sarcosinate: No adverse effect was seen on fertility.
Sodium Lauryl Sulfoacetate: NOAEL: 1000 mg/kg bw (OECD 421)
Disodium Laureth Sulfosuccinate: No adverse effect was seen on fertility.
Cocamide MEA: No adverse effect was seen on fertility.

DEVELOPMENTAL TOXICITY/TERATOGENICITY

Sodium Laureth Sulfate: NOAEL: 1,000 mg/kg bw/day (OECD 414 – Rat)
Sodium Lauryl Sulfate: NOAEL: 300 mg/kg/day; LOAEL: 600 mg/kg/day (Mice/Rat)
Coco-Betaine: No indication for genotoxic or teratogenic effects
Sodium Lauroyl Sarcosinate: NOAEL: > 1,000 mg/kg/day (Rat)
Sodium Lauryl Sulfoacetate: NOAEL: 1000 mg/kg bw (OECD 421)
Disodium Laureth Sulfosuccinate: NOAEL: > 50 mg/kg bw/day
Cocamide MEA: No indication for genotoxic or teratogenic effects

SECTION 12: ECOLOGICAL INFORMATION

The product ingredients are expected to be safe for the environment at concentrations predicted under normal use and accidental spill scenarios. Packaging components are compatible with the conventional solid waste management practices. Additional information is available from the supplier on request.

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Laureth Sulfate</td>
<td>LC₅₀</td>
<td>7.1 mg/L</td>
<td>Danio Rerio</td>
<td>96 h</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>LC₅₀</td>
<td>29 mg/L (OECD 203)</td>
<td>Pimephales Promelas</td>
<td>48 h</td>
</tr>
<tr>
<td>Coco-Betaine</td>
<td>LC₅₀</td>
<td>2 mg/L</td>
<td>Golden Orfe</td>
<td>96h</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>LC₅₀</td>
<td>1.0-10.0 mg/L</td>
<td>Golden Orfe</td>
<td>96 h</td>
</tr>
<tr>
<td>Disodium Cocamphodiacetate</td>
<td>LC₅₀</td>
<td>&gt; 1 – 10 mg/L</td>
<td>Not Reported</td>
<td>96 h</td>
</tr>
<tr>
<td>Sodium Lauroyl Sarcosinate</td>
<td>LC₅₀</td>
<td>107 mg/L</td>
<td>Danio Rerio</td>
<td>96 h</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfoacetate</td>
<td>LC₅₀</td>
<td>4.2 mg/L (OECD 203)</td>
<td>Not Reported</td>
<td>96 h</td>
</tr>
<tr>
<td>Cocamide Mea</td>
<td>LC₅₀</td>
<td>23 - &gt;100 mg/L</td>
<td>Danio Rerio</td>
<td>96 h</td>
</tr>
</tbody>
</table>

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

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### INGREDIENT NAME | TEST | RESULT | SPECIES | EXPOSURE
--- | --- | --- | --- | ---
Sodium Laureth Sulfate | EC50 | 7.4 mg/L | Daphnia Magna | 48 h
Sodium Lauryl Sulfate | EC50 | 5.55 mg/L | Ceriodaphnia Dubia | 48 h
Coco-Betaine | EC50 | 6.5 mg/L | Brachydanio Rerio | 48 h
Cocamidopropyl Betaine | EC50 | 2 mg/L | Brachydanio Rerio | 96 h
Disodium Cocamphodiacetate | EC50 | 25 mg/L | Daphnia Magna | 48 h
Sodium Lauroyl Sarcosinate | EC50 | 29.7 mg/L | Daphnia Magna | 48 h
Sodium Lauroyl Sulfoacetate | EC50 | 5.9 mg/L (OECD 201) | Daphnia Magna | 48 h

### TOXICITY TO AQUATIC PLANTS

| INGREDIENT NAME | TEST | RESULT | SPECIES | EXPOSURE
--- | --- | --- | --- | ---
Sodium Laureth Sulfate | EC50 | >10 g/L | Desmodesmus Subspicatus | 72 h
Sodium Lauryl Sulfate | EC50 | >120 mg/L | Green Algae | 72 h
Coco-Betaine | EC50 | 6 mg/L | Not Reported | 72 h
Cocamidopropyl Betaine | EC50 | 1.0 – 10 mg/L | Desmodesmus Subspicatus | 72 h
Disodium Cocoamphodiacetate | EC50 | >100 mg/L | Not Reported | 72 h
Sodium Lauroyl Sarcosinate | EC50 | 86 mg/L | Desmodesmus Subspicatus | 72 h
Sodium Lauroyl Sulfoacetate | EC50 | 1.9 mg/L | EC Biomass | 96 hours
Cocamide MEA | EC50 | 26 mg/L | Not Reported | 96 hours

### TOXICITY TO MICROORGANISMS

| INGREDIENT NAME | TEST | RESULT | SPECIES | EXPOSURE
--- | --- | --- | --- | ---
Sodium Laureth Sulfate | EC50 | >10 g/L | Pseudomonas Putida | 16 h
Sodium Lauryl Sulfate | EC50 | 0.38 mg/l | Photobacterium Phoshoreum | 15 mins
Coco-Betaine | EC50 | >85 mL | Not Reported | 72 h
Cocamidopropyl Betaine | EC50 | >100 mg/L | Pseudomonas Putida | 72 h
Disodium Cocoamphodiacetate | EC50 | >100 mg/L | Not Reported | 72 h
Sodium Lauroyl Sarcosinate | EC50 | > 10 mg/L (CESIO 1994) | Not Reported | 72 h
Cocamide MEA | EC50 | 26 mg/L | Not Reported | 96 hours

### PERSISTENCY AND DEGRADABILITY:

- **Sodium Laureth Sulfate:** Readily biodegradable; Half Life: 30 days (soil)
- **Sodium Lauryl Sulfate:** Readily biodegradable (95% in 28 days) – OECD 301
- **Coco-Betaine:** Readily biodegradable (84%)  
  Readily and rapidly degradable, (> 60% BOD/COD, > 70% DOC) (OECD 301)
- **Disodium Cocoamphodiacetate:** Readily biodegradable (83% in 28 days) – OECD 302B
- **Sodium Lauroyl Sarcosinate:** Readily biodegradable (90.9%/ in 20 days).
- **Cocamide MEA:** Fully degradable (28-day)

### BIOACCUMULATIVE POTENTIAL:

- **Sodium Laureth Sulfate:** Not considered to be bioaccumulative.
- **Sodium Lauryl Sulfate:** Low bioaccumulation potential.
- **Coco-Betaine:** Not suspected to be bioaccumulative.
- **Sodium Lauroyl Sarcosinate:** Bioaccumulation and bioconcentration is expected because of the relatively high water solubility.
- **Cocamide Mea:** Potentially bioaccumulative (log P >4)

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SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to Section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL CONTAINERS: Containers should be completely closed and meet applicable carrier transport requirements. No governmental agency specification packaging is required for this product. Fiberboard boxes for packaged products and metal/poly drums for liquid material may be used. Packaging materials should not include incompatible materials.

WASTE DISPOSAL METHOD: As manufactured, this product does not exhibit any RCRA characteristics of hazardous waste. Controlled incineration at a licensed waste facility is the recommended technology for treatment and disposal. Material must not be disposed of through sewage.

RCRA HAZARD CLASS: Not regulated.

Follow all local governmental requirements intended for disposal.

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation
- IN CONSUMER PACKAGING: Not regulated
- OTHER THAN CONSUMER PACKAGING: Not regulated

Transport Via Water
- IN CONSUMER PACKAGING: Not regulated
- OTHER THAN CONSUMER PACKAGING: Not regulated

Transport Via Air
- IN CONSUMER PACKAGING: Not regulated
- OTHER THAN CONSUMER PACKAGING: Not regulated

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2  Fire: 0  Reactivity: 0  Other: None

Workplace Hazardous Materials Identification System (WHIMS): Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated April 29, 2009 and all previous versions of material safety data sheets related to this product.

Preparer: Ronald Wesnosky/Chandra L. Jennings
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053  (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Solvent-based Aerosols NFPA Level 3

Recommendations on use: Aerosol-packaged liquid for personal care use (hair fixative)

CAUTION: Contents under pressure. Do not store at temperatures above 120F. Do not puncture or incinerate. Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Avoid spraying into eyes. Liquid dispensed from the container is flammable until dry.

This document is written for the packaged product (aerosol can containing propellants) with references to the dispensed or unpackaged product (liquid) as necessary.

SECTION 2: HAZARDS IDENTIFICATION

Aerosol can filled with solvent-based product – intended to be used as a spray.

Contents under pressure. Do not store at temperatures above 120 F. Do not puncture or incinerate. Avoid fire, flame and other sources of ignition.

OSHA flammable compressed gas; DOT 2.1 flammable aerosol; WHMIS Class B Division 2 Aerosol; NFPA Level 3 aerosol

Causes eye irritation if product comes in contact with eyes. Over-exposure may cause skin irritation. Ingestion may produce signs of alcohol intoxication.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>&lt;55</td>
</tr>
<tr>
<td>Petroleum Distillates</td>
<td>8002-05-9</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Dimethyl Ether</td>
<td>115-10-6</td>
<td>&lt;45</td>
</tr>
<tr>
<td>Difluoroethane</td>
<td>75-37-6</td>
<td>&lt;45</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Cyclomethicone</td>
<td>541-02-6</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>&lt;25</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation or other symptoms occur.

SKIN: Wash off with water and soap.

INGESTION: If swallowed, do not induce vomiting. Consult a physician immediately.
INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No special remarks.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam, and/or water spray. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved.

SPECIAL FIRE FIGHTING PROCEDURES: Treat as NFPA Level 3 aerosol. Follow National Fire Protection Association Guidelines.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Shipped and stored as liquefied compressed gas under pressure. Both the propellants and the liquid product are extremely flammable as individual components. Accordingly, observe all appropriate precautions for handling flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Since this product is a sealed aerosol, accidental discharge of contents is unlikely unless the can is punctured. Should this occur, eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Flammable until dry. Do not use or store near heat, fire, flame, and other sources of ignition. Contents under pressure. Do not store at temperatures above 120°F. Do not puncture or incinerate. Avoid spraying in eyes. Store bulk quantities in a cool, well-ventilated room. Limit inventory to the extent possible.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Testing of aerosol cans should only be performed with explosion-proof ventilation equipment.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

EYE PROTECTION: None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended. For testing of pressurized cans, face shields or other equipment that protects the eyes/face should be considered for use.

SKIN PROTECTION: None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required for product use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.
WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

Occupational Exposure Values:

**OSHA PEL-TWA:**
- 1000 ppm Pentane (all isomers) / Ethanol
- 500 PPM Petroleum Distillates

**ACGIH TLV-TWA:**
- 1000 ppm Butane/Isobutane/Propane (as Aliphatic hydrocarbon gases) and Ethanol
- 600 ppm Pentane (all isomers)
- None listed Difluorethane/Dimethyl ether

**OSHA PEL/ACGIH TLV STEL:** None Established

**OSHA PEL/ACGIH TLV CEILING:** None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE AND ODOR:** Aerosol can dispensing liquid material which dries soon after contact. The water-thin liquid may be slightly colored and/or fragranced.

**PHYSICAL STATE:** Product dispensed as a liquid spray.

**BOILING POINT:**
- F: N/A
- C: N/A

**MELTING POINT:**
- F: N/A
- C: N/A

**FREEZING POINT:**
- F: N/A
- C: N/A

**VAPOR PRESSURE (mmHg):**
- @ 70 F: 2500 -- 5500
- @ 21 C: 2500 -- 5500

**VAPOR DENSITY (AIR = 1):**
- @ 70 F: >1;
- @ 21 C: >1

**SPECIFIC GRAVITY (H2O = 1):** compressed liquid ~ 1; liquid <1

**EVAPORATION RATE:** >1 for product

**SOLUBILITY IN WATER:** Miscible (as liquid product)

**FLAMMABLE LIMITS IN AIR (% BY VOLUME):**
- BUTANE & ISOBUTANE, UPPER: 8.4%; LOWER: 1.6%
- PENTANE, UPPER: 7.8%; LOWER: 1.5%
- ETHANOL, UPPER: 19%; LOWER: 3.3%
- PROPAINE, UPPER: 9.5%; LOWER: 2.1%
- PETROLEUM DISTILLATES, UPPER: 5.9%; LOWER: 1.1%

**FLASH POINT:** <0 C propellants; <20C (as dispensed, liquid product)

**METHOD USED:** Closed Cup

**AUTOIGNITION TEMPERATURE:**
- F: N/A
- C: N/A
SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable.

CONDITIONS TO AVOID (STABILITY): Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents and nitric acid.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): None known

SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:

OSHA: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic
ACGIH: Not recognized as carcinogenic
IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE:

Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:

EYES: Irritation
INGESTION: Harmful if swallowed. May produce signs of alcohol intoxication
SKIN: Overexposure may cause skin irritation
INHALATION: May be irritating if overexposure occurs

ACUTE HEALTH HAZARDS:

Causes eye irritation in the event that contact with product occurs. Ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. Ingestion may also produce signs and symptoms of alcohol intoxication. Overexposure may cause skin irritation.

CHRONIC HEALTH HAZARDS:

None anticipated

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

None known.

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment.
SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Solvent-based aerosol products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation
- In Consumer Packaging: ORM-D; Consumer Commodity
- OTHER THAN CONSUMER PACKAGING (liquid without propellant):
  ID NUMBER: UN 1993
  PROPER SHIPPING NAME: Flammable liquids, n.o.s.
  TECHNICAL NAME: Ethyl Alcohol, Petroleum Distillates, Cyclomethicone
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Water
- In Consumer Packaging: Limited Quantity
  ID NUMBER: UN 1950
  PROPER SHIPPING NAME: Aerosols
  HAZARD CLASS: 2.1
  LABEL STATEMENTS:

- OTHER THAN CONSUMER PACKAGING (liquid without propellant):
  ID NUMBER: UN 1993
  PROPER SHIPPING NAME: Flammable liquids, n.o.s.
  TECHNICAL NAME: Ethyl Alcohol, Petroleum Distillates, Cyclomethicone
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Air
- In Consumer Packaging: Consumer Commodity ID 8000
- OTHER THAN CONSUMER PACKAGING (liquid without propellant):
  ID NUMBER: UN 1993
  PROPER SHIPPING NAME: Flammable liquids, n.o.s.
  TECHNICAL NAME: Ethyl Alcohol, Petroleum Distillates, Cyclomethicone
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Please be aware of carrier transport variations before shipping hazardous materials.
SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes:  Health: 2  Fire: 4  Reactivity: 0  Other:  None

Hazardous Materials Identification System:  Class B Division 2 Flammable Aerosol

Occupational Safety and Health Administration:  Flammable Compressed gas (aerosol)

US DOT/ICAO/IMDG:  See section 14 above

Propellants as well as liquid contents are considered flammable. This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION:  This document replaces the version dated December 7, 2005 and all previous versions of material safety data sheets related to this product.

Author:  Chandra L. Jennings
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.  
111 Terminal Avenue  
Clark, NJ 07066  
Emergency Telephone Number  
800-535-5053 (International: 352-323-3500)  
For further information:  
732-499-2741

Product Name: Water-based Aerosols NFPA Level 1

Recommendations on use: Aerosol-packaged cream or gel for personal care use (hair/skin)

CAUTION: Contents under pressure. Do not store at temperatures above 120°F. Do not puncture or incinerate. Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Avoid spraying into eyes.

This document is written for the packaged product (aerosol can containing propellants) with references to the dispensed or unpackaged product (liquid/gel or foam) as necessary.

SECTION 2: HAZARDS IDENTIFICATION

Aerosol can filled with water-based product – product may foam when dispensed.

Contents under pressure. Do not store at temperatures above 120 °F. Do not puncture or incinerate. Avoid fire, flame and other sources of ignition.

OSHA flammable compressed gas; DOT 2.1 flammable aerosol; WHMIS Class B Division 5 Aerosol; NFPA Level 1 aerosol

May have irritating properties if product comes in contact with eyes.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difluoroethane</td>
<td>75-37-6</td>
<td>&lt;20</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>&lt;6</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>&lt;6</td>
</tr>
<tr>
<td>Dimethyl ether</td>
<td>115-10-6</td>
<td>&lt;6</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>&lt;6</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>&lt;6</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation occurs.

SKIN: Wash off with water.

INGESTION: If swallowed, do not induce vomiting. Consult a physician if gastrointestinal symptoms occur.

INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No special remarks.
SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Water and/or foam – typically a Class A or Class B extinguisher should be sufficient for the product. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved.

SPECIAL FIRE FIGHTING PROCEDURES: Treat as NFPA Level 1 aerosol. Follow National Fire Protection Association Guidelines.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Shipped and stored as liquefied compressed gas under pressure. The propellants are extremely flammable as individual components. However, the dispensed liquid product (not including propellants) is non-flammable based upon flame extension criteria.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Since this product is a sealed aerosol, accidental discharge of contents is unlikely unless the can is punctured. Should this occur, solidify foam and/or free liquid with a suitable absorbent and place in plastic or metal containers for disposal.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Caution: contents under pressure. Do not store at temperatures above 120 F. Do not puncture or incinerate aerosol cans. Avoid fire, flame, heat and other sources of ignition.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. Testing of aerosol cans should only be performed with explosion-proof ventilation equipment.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

EYE PROTECTION: None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended. For testing of pressurized cans, face shields or other protective equipment that protects the eyes/face should be considered for use.

SKIN PROTECTION: None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required for product use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.
Occupational Exposure Values:

OSHA PEL-TWA: None established
ACGIH TLV-TWA: 1000 ppm Butane/Isobutane/Propane (as Aliphatic hydrocarbon gases)
None listed Difluorethane/Dimethyl ether
OSHA PEL/ACGIH TLV STEL : None Established
OSHA PEL/ACGIH TLV CEILING: None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Aerosol can dispensing foam or gel with fragrance.

PHYSICAL STATE: Product dispensed as foam/gel

BOILING POINT:
F: N/A
C: N/A

MELTING POINT:
F: N/A
C: N/A

FREEZING POINT:
F: N/A
C: N/A

VAPOR PRESSURE (mmHg):
@ 70 F: 2500 – 5500; @ 21 C: 2500 – 5500

VAPOR DENSITY (AIR = 1):
@ 70 F: >1; @ 21 C: >1

SPECIFIC GRAVITY (H2O = 1): compressed liquid ~ 1; foam <1

EVAPORATION RATE: <1 for product
(Butyl acetate = 1)

SOLUBILITY IN WATER: Soluble

FLAMMABLE LIMITS IN AIR (% BY VOLUME): BUTANE, UPPER: 8.4% LOWER: 1.6%

FLASH POINT: <0F; METHOD USED: Closed Cup

AUTOIGNITION TEMPERATURE:
F: N/A
C: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable.

CONDITIONS TO AVOID (STABILITY): Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents and nitric acid.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): None known
SECTION 11:  TOXICOLOGICAL INFORMATION

CARCINOGENICITY:

OSHA:  Not recognized as carcinogenic
NTP:  Not recognized as carcinogenic
ACGIH: Not recognized as carcinogenic
IARC:  Not recognized as carcinogenic

ROUTES OF EXPOSURE:

Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:

EYES:  Possible irritation
INGESTION: Harmful if swallowed
SKIN: None expected
INHALATION: None expected

ACUTE HEALTH HAZARDS:

May cause eye irritation in the event that contact with product occurs. Ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. No adverse effects anticipated following dermal exposure.

CHRONIC HEALTH HAZARDS:

None anticipated

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

None known.

SECTION 12:  ECOLOGICAL INFORMATION

The product ingredients are expected to be safe for the environment at the concentrations predicted under normal use and accidental spill scenarios.

SECTION 13:  DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:  Water-based aerosol products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal.

RCRA HAZARD CLASS:  D001

Follow all local governmental requirements intended for disposal.
SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation
- In Consumer Packaging: ORM-D; Consumer Commodity
- OTHER THAN CONSUMER PACKAGING (liquid without propellant): Non-hazardous/Not regulated

Transport Via Water
- In Consumer Packaging: Limited Quantity
  ID NUMBER: UN 1950
  PROPER SHIPPING NAME: Aerosols
  HAZARD CLASS: 2.1
  PACKING GROUP:
  LABEL STATEMENTS:
- OTHER THAN CONSUMER PACKAGING (liquid without propellant): Non-hazardous/Not regulated

Transport Via Air
- In Consumer Packaging: Consumer Commodity ID 8000
- OTHER THAN CONSUMER PACKAGING (liquid without propellant): Non-hazardous/Not regulated

Please be aware of carrier transport variations before shipping hazardous materials.

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 1  Fire: 1  Reactivity: 0  Other: None
Hazardous Materials Identification System: Class B Division 5 Flammable Aerosol
Occupational Safety and Health Administration: Flammable Compressed gas (aerosol).
US DOT/ICAO/IMDG: See section 14 above

Product when dispensed/prior to packaging is non-hazardous.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated December 18, 2003 and all previous versions of material safety data sheets related to this product.

Author: Chandra L. Jennings
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Alcohol-based Aerosols NFPA Level 2

Recommendations on use: Aerosol-packaged liquid for personal care use (hair fixative)

CAUTION: Contents under pressure. Do not store at temperatures above 120F. Do not puncture or incinerate. Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Avoid spraying into eyes. Liquid dispensed from the container is flammable until dry.

This document is written for the packaged product (aerosol can containing propellants) with references to the dispensed or unpackaged product (liquid) as necessary.

SECTION 2: HAZARDS IDENTIFICATION

Aerosol can filled with alcohol-based product – intended to be used as a spray.

Contents under pressure. Do not store at temperatures above 120 F. Do not puncture or incinerate. Avoid fire, flame and other sources of ignition.

OSHA flammable compressed gas; DOT 2.1 flammable aerosol; WHMIS Class B Division 2 Aerosol; NFPA Level 2 aerosol

Causes eye irritation if product comes in contact with eyes. Over-exposure may cause skin irritation. Ingestion may produce signs of alcohol intoxication.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>&lt;55</td>
</tr>
<tr>
<td>Dimethyl Ether</td>
<td>115-10-6</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
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<td>&lt;25</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>&lt;25</td>
</tr>
<tr>
<td>Difluoroethane</td>
<td>75-37-6</td>
<td>&lt;45</td>
</tr>
<tr>
<td>Pentane</td>
<td>109-66-0</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation or other symptoms occur.

SKIN: Wash off with water and soap.

INGESTION: If swallowed, do not induce vomiting. Consult a physician immediately.
INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No special remarks.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam, and/or water spray. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved.

SPECIAL FIRE FIGHTING PROCEDURES: Treat as NFPA Level 2 aerosol. Follow National Fire Protection Association Guidelines.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Shipped and stored as liquefied compressed gas under pressure. Both the propellants and the liquid product are extremely flammable as individual components. Accordingly, observe all appropriate precautions for handling flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Since this product is a sealed aerosol, accidental discharge of contents is unlikely unless the can is punctured. Should this occur, eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows. Place spent absorbents in UN specification drums for disposal. The product is alcohol-based. All precautions associated with controlling a flammable liquid should be employed during clean-up.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Flammable until dry. Do not use or store near heat, fire, flame, and other sources of ignition. Contents under pressure. Do not store at temperatures above 120°F. Do not puncture or incinerate. Avoid spraying in eyes. Store bulk quantities in a cool, well-ventilated room. Limit inventory to the extent possible.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Testing of aerosol cans should only be performed with explosion-proof ventilation equipment.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

EYE PROTECTION: None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended. For testing of pressurized cans, face shields or other equipment that protects the eyes/face should be considered for use.

SKIN PROTECTION: None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required for product use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

Occupational Exposure Values:

| OSHA PEL-TWA:  | 1000 ppm Pentane (all isomers) |
| ACGIH TLV-TWA: | 1000 ppm Butane/Isobutane/Propane (as Aliphatic hydrocarbon gases) |
|                | 600 ppm Pentane (all isomers) |
|                | None listed Difluorethane/Dimethyl ether |
| OSHA PEL/ACGIH TLV STEL: | None Established |
| OSHA PEL/ACGIH TLV CEILING: | None Established |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Aerosol can dispensing liquid material which dries soon after contact. The water-thin liquid may be slightly colored and/or fragranced.

PHYSICAL STATE: Product dispensed as a liquid spray.

BOILING POINT: F: N/A  C: N/A
MELTING POINT: F: N/A  C: N/A
FREEZING POINT: F: N/A  C: N/A

VAPOR PRESSURE (mmHg):
@ 70  F: 2500 -- 5500  @ 21  C: 2500 -- 5500

VAPOR DENSITY (AIR = 1):
@ 70  F: >1;  @ 21  C: >1

SPECIFIC GRAVITY (H2O = 1): compressed liquid ~ 1; liquid <1

EVAPORATION RATE: >1 for product  (Butyl acetate = 1)

SOLUBILITY IN WATER: Soluble (as liquid product)

FLAMMABLE LIMITS IN AIR (% BY VOLUME): BUTANE, UPPER: 8.4%  LOWER: 1.6%; PENTANE, UPPER 7.8% LOWER 1.5%

FLASH POINT: <0 C propellants; <20C (as dispensed, liquid product) METHOD USED: Closed Cup

AUTOIGNITION TEMPERATURE: F: N/A  C: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable.

CONDITIONS TO AVOID (STABILITY): Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents and nitric acid.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known.
HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): None known

SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:

OSHA: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic
ACGIH: Not recognized as carcinogenic
IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE:

Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:

EYES: Irritation
INGESTION: Harmful if swallowed. May produce signs of alcohol intoxication
SKIN: Overexposure may cause skin irritation
INHALATION: May be irritating if overexposure occurs

ACUTE HEALTH HAZARDS:

Causes eye irritation in the event that contact with product occurs. Ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. Ingestion may also produce signs and symptoms of alcohol intoxication. Overexposure may cause skin irritation.

CHRONIC HEALTH HAZARDS:

None anticipated

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

None known.

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Alcohol-based aerosol products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.
SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

• In Consumer Packaging: ORM-D; Consumer Commodity

• OTHER THAN CONSUMER PACKAGING (liquid without propellant):
  ID NUMBER: UN 1170
  PROPER SHIPPING NAME: Ethyl alcohol, solution
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Water

• In Consumer Packaging: Limited Quantity
  ID NUMBER: UN 1950
  PROPER SHIPPING NAME: Aerosols
  HAZARD CLASS: 2.1
  PACKING GROUP:
  LABEL STATEMENTS:

• OTHER THAN CONSUMER PACKAGING (liquid without propellant):
  ID NUMBER: UN 1170
  PROPER SHIPPING NAME: Ethyl alcohol, solution
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Air

• In Consumer Packaging: Consumer Commodity ID 8000

• OTHER THAN CONSUMER PACKAGING (liquid without propellant):
  ID NUMBER: UN 1170
  PROPER SHIPPING NAME: Ethyl alcohol, solution
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Please be aware of carrier transport variations before shipping hazardous materials.
SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes:  Health: 2  Fire: 4  Reactivity: 0  Other:  None
Hazardous Materials Identification System:  Class B Division 2 Flammable Aerosol
Occupational Safety and Health Administration:  Flammable Compressed gas (aerosol)
US DOT/ICAO/IMDG:  See section 14 above

Propellants as well as liquid contents are considered flammable. This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION:  This document replaces the version dated December 18, 2003 and all previous versions of material safety data sheets related to this product.

Author: Chandra L. Jennings
Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

IDENTITY
Liquid Volatile Silicone-Based Cosmetics

Section I
Manufacturer's Name
L'Oreal USA Products, Inc.
Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)
Telephone Number For Information
(732) 499-2746
Date Prepared
February 6, 2006 (replaces 1-11-05)
Signature of Preparer (optional)
C. Jennings

Section II - Hazardous Ingredients/Identity Information
Hazardous Components (Specific Chemical Identity;Common Name(s)) OSHA PEL ACGIH TLV Other Limits Recommended % (optional)
Cyclomethicone None None <85%
Cyclopentasiloxane None None <90%
Cyclohexasiloxane None None <60%

Section III - Physical/Chemical Characteristics
Boiling Point
>150°F Specific Gravity (H2O = 1) ~1
Vapor Pressure (mm Hg) N/A Melting Point N/A
Vapor Density (AIR = 1) >1 Evaporation Rate (Butyl Acetate = 1) >1
Solubility in Water Insoluble
Appearance and Odor
Semi-viscous clear to translucent liquid with a faint odor.

Section IV - Fire and Explosion Hazard Data
Flash Point (Method Used) Flammable Limits LEL UEL
26-140°F (closed cup) Cyclomethicone 0.5% 8.0%
Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray may be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of flammable liquids. For manufacturing, minimize airborne vapor levels through engineering controls.
Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Avoid heat, fire, and other sources of ignition.</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)
Oxidizing agents and nitric acid.

Hazardous Decomposition or Byproducts
Silicon dioxide, carbon monoxide, carbon dioxide.

<table>
<thead>
<tr>
<th>Hazardous Polymerization</th>
<th>May Occur</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

<table>
<thead>
<tr>
<th>Route(s) of Entry:</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Not likely.</td>
</tr>
</tbody>
</table>

Health Hazards (Acute and Chronic)
May cause eye irritation. Although product is non-toxic, ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. No adverse effects would be expected following dermal exposure.

<table>
<thead>
<tr>
<th>Carcinogenicity:</th>
<th>NTP?</th>
<th>IARC Monographs?</th>
<th>OSHA Regulated?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Signs and Symptoms of Exposure
Possible eye irritation; temporary gastrointestinal disturbance and diarrhea.

Medical Conditions Generally Aggravated by Exposure
None known.

Emergency and First Aid Procedure
If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. If swallowed, drink one or two glasses of water or milk and consult a physician. If on skin, wash with soap and water.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled
Eliminate all sources of ignition. Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other absorbants. Containerize spent absorbants in UN specification drums for disposal. Wash spill area with detergent solution as necessary.

Waste Disposal Method
Liquid volatile silicone-based cosmetics are ignitable (D001) RCRA hazardous wastes when intended for disposal. Incineration is the required method of treatment and disposal.

Precautions to be Taken in Handling and Storage
Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

Other Precautions
For external use only. Use only as directed.

Section VIII - Control Measures

For routine manufacturing/filling operations, none generally required. For spills, wear an approved self-contained breathing apparatus.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Explosion-Proof</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mechanical(General)</td>
<td>Explosion-Proof</td>
<td>Other</td>
</tr>
</tbody>
</table>
Protective Gloves
Rubber or plastic gloves for bulk quantities.

Other Protective Clothing or Equipment
Safety glasses and protective clothing for bulk quantities.

Work/Hygienic Practices
OSHA hazard classification: Flammable/combustible.
DOT classification: Bulk - Flammable liquids, N.O.S.
(cyclomethicone/cyclopentasiloxane/cyclohexasiloxane)
3 UN 1993 PGII or III.
Finished Product - Consumer Commodity, ORM-D.
Material Safety Data Sheet

IDENTITY
Alcohol-Based Hair Styling Products

Section I
Manufacturer’s Name
L’Oreal USA Products, Inc.
Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)
Telephone Number For Information
(732) 499-2745
Date Prepared
December 18, 2003
Signature of Preparer (optional)
GCD

Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components (Specific Chemical Identity;Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits Recommended</th>
<th>% (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>1000 ppm</td>
<td></td>
<td></td>
<td>Total Alcohols</td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>400 ppm</td>
<td></td>
<td></td>
<td>25-92%</td>
</tr>
</tbody>
</table>

Section III - Physical/Chemical Characteristics

Boiling Point
120-170°F
Specific Gravity (H2O = 1)
~0.9
Vapor Pressure (mm Hg)
N/A
Melting Point
N/A
Vapor Density (AIR = 1)
>1
Evaporation Rate
Butyl Acetate = 1
~3
Solubility in Water
Miscible
Appearance and Odor
Translucent, water thin liquid with a pleasant odor. (non-aerosol)

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)
30-73°F (closed cup)
Flammable Limits
Ethanol
LEL 3.3% UEL 19%
Extinguishing Media
Carbon dioxide, dry chemical, foam and/or water spray.
Special Fire Fighting Procedures
For small fires, use carbon dioxide, dry chemical, or foam.
For larger fires, use ample quantities of water.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of flammable liquids.
For manufacturing, minimize airborne vapor levels through engineering controls.
**Section V - Reactivity Data**

**Stability**

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Stable</th>
<th>X</th>
</tr>
</thead>
</table>

**Incompatibility (Materials to Avoid)**

Oxidizing agents and nitric acid.

**Hazardous Decomposition or Byproducts**

None known.

**Polymerization**

<table>
<thead>
<tr>
<th>Hazardous</th>
<th>May Occur</th>
<th>Conditions to Avoid</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Not Occur</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Section VI - Health Hazard Data**

**Route(s) of Entry:**

<table>
<thead>
<tr>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Not likely</td>
</tr>
</tbody>
</table>

**Health Hazards (Acute and Chronic)**

Causes eye irritation. May cause skin irritation or sensitization in sensitive individuals. May be harmful if swallowed.

**Carcinogenicity:**

<table>
<thead>
<tr>
<th>NTP?</th>
<th>IARC Monographs?</th>
<th>OSHA Regulated?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Signs and Symptoms of Exposure**

Overexposure and/or ingestion may produce signs and symptoms of alcohol intoxication.

**Medical Conditions Generally Aggravated by Exposure**

None known.

**Emergency and First Aid Procedure**

**INGESTION:** Give one or two glasses of water or milk and consult physician.

**EYE CONTACT:** Flush thoroughly with water for at least 15 minutes and get medical attention.

**SKIN CONTACT:** Flush with water, then wash with soap and plenty of water.

**Section VII - Precautions for Safe Handling and Use**

**Steps to be Taken in Case Material is Released or Spilled**

Eliminate all sources of ignition. Dike and contain the free liquid and absorb with vermiculite or spill pillows. Containerize absorbed material in UN specification drums for disposal. Wash spill area with water.

**Waste Disposal Method**

Alcohol-based products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Incineration is the required method of treatment and disposal.

**Precautions to be Taken in Handling and Storage**

Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

**Other Precautions**

Avoid contact with eyes. For external use only. Use only as directed.
Section VIII - Control Measures

Respiratory Protection (Specify Type)
For manufacturing/filling, wear a NIOSH-approved organic vapor respirator if alcohol TLV is exceeded. For spills, wear an approved self-contained operating apparatus.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Explosion-Proof</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical(General)</td>
<td>Explosion-Proof</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Protective Gloves
Plastic or rubber for bulk quantities.

Other Protective Clothing or Equipment
Safety glasses for bulk quantities. Protective clothing for manufacturing operations.

Work/Hygienic Practices
OSHA hazard classification: Flammable, eye irritant
DOT classification: Bulk - Ethanol solutions, 3 UN 1170 PGII
                                  Finished product - Consumer Commodity, ORM-D.
Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
Consulted for specific requirements

IDENTITY
Semi-Permanent and Permanent Hair Dyes Containing No Alcohols

Section I

Manufacturer's Name
L'Oreal USA Products, Inc.

Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int'l 352-323-3500)

Telephone Number For Information
(732) 499-2746

Date Prepared
January 27, 2006 (replaces 12-18-03)

Signature of Preparer (optional)
CLJ

Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components (Specific Chemical Identity:Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits Recommended</th>
<th>% (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanolamine</td>
<td>3 ppm</td>
<td>&lt;10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethoxydiglycol</td>
<td></td>
<td>&lt;10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonium Hydroxide</td>
<td>25 ppm</td>
<td>&lt;7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-Phenylenediamine</td>
<td>0.1mg/m³</td>
<td>&lt;5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aminophenols</td>
<td>None</td>
<td>&lt;2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resorcinol</td>
<td>10 ppm</td>
<td>&lt;1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>2 mg/m³</td>
<td>&lt;1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>170-200°F</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>1</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point</td>
<td></td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Dispersible</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>White to tan viscous liquid or cream with an ammonical odor.</td>
</tr>
</tbody>
</table>

Section IV - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Method Used)</td>
<td>&gt;200°F (closed cup)</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>None</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Extinguishing Media
Not applicable.

Special Fire Fighting Procedures
Not applicable.

Unusual Fire and Explosion Hazards
None known.
**Section V - Reactivity Data**

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>X</td>
<td>None known.</td>
</tr>
</tbody>
</table>

**Incompatibility (Materials to Avoid)**
None known.

**Hazardous Decomposition or Byproducts**
None known.

<table>
<thead>
<tr>
<th>Hazardous Polymerization</th>
<th>May Occur</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Not Occur</td>
<td>X</td>
<td>None known.</td>
</tr>
</tbody>
</table>

**Section VI - Health Hazard Data**

**Route(s) of Entry:**
- **Inhalation?** Yes
- **Skin?** Yes
- **Ingestion?** Not likely.

**Health Hazards (Acute and Chronic)**
Harmful if swallowed, inhaled, or absorbed through skin. This product may cause serious irritant, respiratory, and/or allergic reactions in sensitive individuals.

**Carcinogenicity:**
- NTP? No
- IARC Monographs? No
- OSHA Regulated? No

**Signs and Symptoms of Exposure**
Irritation of eyes, skin, and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

**Medical Conditions Generally Aggravated by Exposure**
Existing dermatological conditions, such as eczema, and respiratory conditions, such as bronchial asthma and/or chronic bronchitis, may be exacerbated.

**Emergency and First Aid Procedure**
If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get prompt medical attention. If affected by inhalation, move to fresh air. If symptoms persist, get medical attention. If eye or skin contact occurs, immediately flush with water and get medical attention if irritation occurs.

**Section VII - Precautions for Safe Handling and Use**

**Steps to be Taken in Case Material is Released or Spilled**
Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other suitable absorbent material. Place spent absorbents in proper containers for disposal.

**Waste Disposal Method**
This material is not regulated under RCRA. Accordingly, incineration at a non-hazardous waste treatment facility is the preferred method of disposal.

**Precautions to be Taken in Handling and Storage**
Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. To assure maximum shelf-life, avoid direct sunlight.

**Other Precautions**
For external use only. Use only as directed. Keep out of reach of children. Patch test is intended to identify skin reaction only; it will not necessarily predict sensitization or irritation secondary to inhalation. Read the product package insert completely.
Section VIII - Control Measures

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved respirator if constituent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Recommended</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical(General)</td>
<td>Generally</td>
<td>Acceptable</td>
<td>Other</td>
</tr>
</tbody>
</table>

Protective Gloves

Plastic or rubber gloves.

Other Protective Clothing or Equipment

Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Irritant, slightly toxic, possible sensitizer.
DOT classification: Bulk - Not regulated.
Finished Product - Not regulated.
Material Safety Data Sheet
May be used to comply with
OSHA’s Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

IDENTITY
Anhydrous Perm Wave Waving/Reforming Lotions

Section I
Manufacturer’s Name
L’Oreal USA Products, Inc.
Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)

Telephone Number For Information
(732) 499-2745

Date Prepared
December 18, 2003

Signature of Preparer (optional)
GCD

Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components (Specific Chemical Identity;Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits Recommended</th>
<th>% (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyceryl Monothioglycolate</td>
<td>None</td>
<td></td>
<td></td>
<td>~75%</td>
</tr>
</tbody>
</table>

Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Physical/Chemical Characteristics</th>
<th>Boiling Point</th>
<th>Vapor Pressure (mm Hg)</th>
<th>Vapor Density (AIR = 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>&gt;1</td>
</tr>
</tbody>
</table>

Specific Gravity (H2O = 1)
~1.2

Melting Point
N/A

Evaporation Rate
(Butyl Acetate = 1)
<1

Solubility in Water
Insoluble

Appearance and Odor
Thick viscous liquid with a sulfurous odor.

Section IV - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Flash Point (Method Used)</th>
<th>Flammable Limits</th>
<th>LEL</th>
<th>UEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;200°F (closed cup)</td>
<td>None</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
For small fires, use carbon dioxide, dry chemical, or foam.
For larger fires, use ample quantities of water. Wear a self-contained breathing apparatus.

Unusual Fire and Explosion Hazards
Material may undergo decomposition into hydrogen sulfide and oxides of sulfur in a fire.
Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td></td>
<td>Avoid excessive heat.</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)
Metallic stirrers and bowls, iron, nickel, oxidizing agents, and acids.

Hazardous Decomposition or Byproducts
Hydrogen sulfide, sulfur dioxide, sulfur trioxide.

<table>
<thead>
<tr>
<th>Hazardous Polymerization</th>
<th>May Occur</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Not Occur</td>
<td>X</td>
<td>None known.</td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

<table>
<thead>
<tr>
<th>Route(s) of Entry:</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Not likely.</td>
</tr>
</tbody>
</table>

Health Hazards (Acute and Chronic)
Harmful if swallowed, inhaled, or absorbed through skin. This product may cause serious irritant, respiratory, and/or allergic reactions in sensitive individuals.

Carcinogenicity:
NTP? IARC Monographs? OSHA Regulated?
No No No

Signs and Symptoms of Exposure
Irritation of eyes, skin, and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

Medical Conditions Generally Aggravated by Exposure
Existing dermatological conditions, such as eczema, and respiratory conditions, such as bronchial asthma and/or chronic bronchitis, may be exacerbated.

Emergency and First Aid Procedure
If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get prompt medical attention. If affected by inhalation, move to fresh air. If symptoms persist, get medical attention. If eye or skin contact occurs, immediately flush with water and get medical attention if irritation occurs.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled
Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other suitable absorbant material. Place spent absorbants in proper containers for disposal.

Waste Disposal Method
This material is not regulated under RCRA. Accordingly, incineration at a non-hazardous waste treatment facility is the preferred method of disposal.

Precautions to be Taken in Handling and Storage
Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. To assure maximum shelf-life, avoid direct sunlight.

Other Precautions
For external use only. Use only as directed. Keep out of reach of children. Patch test is intended to identify skin reaction only; it will not necessarily predict sensitization or irritation secondary to inhalation. Read the product package insert completely.
Section VIII - Control Measures

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved respirator if constituent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Recommended</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical(General)</td>
<td>Generally</td>
<td>Acceptable</td>
<td>Other</td>
</tr>
</tbody>
</table>

Protective Gloves

Plastic or rubber gloves.

Other Protective Clothing or Equipment

Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Irritant, slightly toxic, possible sensitizer.
DOT classification: Bulk - Not regulated.

Finished Product - Not regulated.
Material Safety Data Sheet

IDENTITY
Aqueous Perm Wave Waving/Reforming Lotions

Section I

Manufacturer's Name
L'Oreal USA Products, Inc.

Address (Number, Street, City, State, and Zip Code)
111 Terminal Avenue

Clark, NJ  07066

Emergency Telephone Number
(800) 535-5053 (Int'l 352-323-3500)

Telephone Number For Information
(732) 499-2745

Date Pre pared
December 18, 2003

Signature of Pre parer (optional)
GCD

Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components (Specific Chemical Identity/Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits Recommended</th>
<th>% (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Thioglycolate</td>
<td>None</td>
<td></td>
<td></td>
<td>&lt;15</td>
</tr>
<tr>
<td>Ethanolamine Thioglycolate</td>
<td>None</td>
<td></td>
<td></td>
<td>&lt;5</td>
</tr>
<tr>
<td>Ammonium Hydroxide</td>
<td></td>
<td>25 ppm</td>
<td></td>
<td>&lt;2</td>
</tr>
</tbody>
</table>

Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>~212°F</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>~1</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Miscible</td>
</tr>
<tr>
<td>pH</td>
<td>5-10</td>
</tr>
</tbody>
</table>

Appearance and Odor
Clear or slightly colored water-thin to viscous liquid with an ammonical/sulfurous odor.

Section IV - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Method Used)</td>
<td>&gt;200°F</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>None</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Extinguishing Media
Not applicable.

Special Fire Fighting Procedures
Not applicable.

Unusual Fire and Explosion Hazards
Not applicable.
Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td></td>
<td>Avoid excessive heat.</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)
Metallic stirrers and bowls, iron, nickel, oxidizing agents, and acids.

Hazardous Decomposition or Byproducts
Hydrogen sulfide, sulfur dioxide, sulfur trioxide.

<table>
<thead>
<tr>
<th>Hazardous Polymerization</th>
<th>May Occur</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Not Occur</td>
<td>X</td>
<td>None known.</td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Skin? Ingestion?
Yes Yes Not likely.

Health Hazards (Acute and Chronic)
Harmful if swallowed, inhaled, or absorbed through skin. This product may cause serious irritant, respiratory, and/or allergic reactions in sensitive individuals.

Carcinogenicity: NTP? IARC Monographs? OSHA Regulated?
No No No

Signs and Symptoms of Exposure
Irritation of eyes, skin, and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

Medical Conditions Generally Aggravated by Exposure
Existing dermatological conditions, such as eczema, and respiratory conditions, such as bronchial asthma and/or chronic bronchitis, may be exacerbated.

Emergency and First Aid Procedure
If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get prompt medical attention. If affected by inhalation, move to fresh air. If symptoms persist, get medical attention. If eye or skin contact occurs, immediately flush with water and get medical attention if irritation occurs.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled
Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other suitable absorbent material. Place spent absorbents in proper containers for disposal.

Waste Disposal Method
This material is not regulated under RCRA. Accordingly, incineration at a non-hazardous waste treatment facility is the preferred method of disposal.

Precautions to be Taken in Handling and Storage
Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. To assure maximum shelf-life, avoid direct sunlight.

Other Precautions
For external use only. Use only as directed. Keep out of reach of children. Patch test is intended to identify skin reaction only; it will not necessarily predict sensitization or irritation secondary to inhalation. Read the product package insert completely.
Section VIII - Control Measures

Respiratory Protection (Specify Type)
For manufacturing/filling, wear a NIOSH-approved respirator if constituent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Recommended</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical(General)</td>
<td>Generally</td>
<td>Acceptable</td>
<td>Other</td>
</tr>
</tbody>
</table>

Protective Gloves
Plastic or rubber gloves.

Other Protective Clothing or Equipment
Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices
OSHA hazard classification: Irritant, slightly toxic, possible sensitizer.
DOT classification: Bulk - Not regulated.
                             Finished Product - Not regulated.
Material Safety Data Sheet
May be used to comply with OSHA’s Hazard Communication Standard
29 CFR 1910.1200. Standard must be consulted for specific requirements

Identity
Perm Wave Neutralizers/Bonding Lotions

Section I
Manufacturer’s Name
L’Oreal USA Products, Inc.
Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)

Telephone Number For Information
(732) 499-2745

Date Prepared
September 22, 2004

Signature of Preparer (optional)
GCD

Section II - Hazardous Ingredients/Identity Information
Hazardous Components (Specific Chemical Identity;Common Name(s))
OSHA PEL
ACGIH TLV
Other Limits Recommended
% (optional)
Hydrogen Peroxide
1 ppm
≤4%

Section III - Physical/Chemical Characteristics
Boiling Point
~212°F
Specific Gravity (H2O = 1)
~1

Vapor Pressure (mm Hg)
N/A
Melting Point
N/A

Vapor Density (AIR = 1)
N/A
Evaporation Rate
(Butyl Acetate = 1)
<1

Solubility in Water
Miscible
pH = 2.5-3.5

Appearance and Odor
Clear to white thin liquid with a faint odor.

Section IV - Fire and Explosion Hazard Data
Flash Point (Method Used)
>200°F (closed cup)
Flammable Limits
None
LEL
N/A
UEL
N/A

Extinguishing Media
Use media appropriate for materials actually involved in the fire.

Special Fire Fighting Procedures
Upon decomposition, peroxides yield oxygen and may thereby stimulate the combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

Unusual Fire and Explosion Hazards
Caution: Oxidizer. Residual product on towels, sponges, or mops may cause fire. Rinse towels thoroughly before disposal. Rinse sponges and mops thoroughly before storage.
Section V - Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Avoid contact with iron, zinc, and reducing agents.</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)
Organic compounds (including flammables and combustibles), iron, zinc, and reducing agents.

Hazardous Decomposition or Byproducts
None known.

<table>
<thead>
<tr>
<th>Hazardous Polymerization</th>
<th>May Occur</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Will Not Occur</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>None known.</td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Skin? Ingestion?
Yes Yes Not likely.

Health Hazards (Acute and Chronic)
May cause skin and severe eye irritation. Harmful if swallowed. May cause severe irritation of gastric mucous membranes if swallowed.

Carcinogenicity: NTP? IARC Monographs? OSHA Regulated?
No No No

Signs and Symptoms of Exposure
Irritation of skin, eyes, and/or mucous membranes.

Medical Conditions Generally Aggravated by Exposure
None known.

Emergency and First Aid Procedure
If swallowed, drink one or two glasses of water or milk. Call a physician, hospital emergency room, or poison control center immediately. Do not induce vomiting. Get medical attention. If in eyes, flush with water for at least 15 minutes and get medical attention. If on skin, flush with water, then wash with soap and plenty of water. Consult a physician if irritation occurs.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled
For small spills, wipe up with paper towels or a sponge. Wash area with water. Rinse paper towels, sponges, or mops thoroughly prior to disposal or storage. For large spills, dike and contain the free liquid. Use absorbant material to solidify spill and then place in proper containers for disposal.

Waste Disposal Method
Although dilute (<8%) hydrogen peroxide solutions are not regulated as hazardous wastes under RCRA, physical and/or chemical deactivation/degradation of the peroxide solution is the recommended method of treatment and disposal for these products.

Precautions to be Taken in Handling and Storage
Do not use or store with or near fuels, solvents, or other organic materials. Avoid iron, zinc, and reducing agents. Store in a cool place away from direct sunlight. Keep out of reach of children.

Other Precautions
For external use only. Use only as directed.
Section VIII - Control Measures

Respiratory Protection (Specify Type)
None required for product use. For handling bulk quantities, use a NIOSH-approved respirator if peroxide TLV is exceeded. For spills or fires, wear a self-contained breathing apparatus.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Recommended</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mechanical(General)</td>
<td>Acceptable</td>
<td>Other</td>
</tr>
</tbody>
</table>

Protective Gloves

Plastic or rubber.

Other Protective Clothing or Equipment

Safety glasses with side shields (or full face shield) and protective clothing are recommended for manufacturing operations. Safety shower and eyewash station should be immediately available.

Work/Hygienic Practices

OSHA hazard classification: Oxidizer, irritant, slightly toxic
DOT classification: Bulk - Not regulated
Finished Product - Not regulated.
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

24 Hour Emergency Telephone Number:
1-800-535-5053 (US)
01-352-323-3500 (Outside US)

For further information:
1-732-499-2741

Product Name: ≤ 25 Volume Hair Developer and Other Products Containing < 8% Hydrogen Peroxide

Recommendations on use: Liquid developer for promoting deposit of hair color.

Restrictions on use: Refer to product insert/container for use warnings. For external use only. Use only as directed.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hazard Statement</th>
<th>Prevention Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irritation – Category 2A</td>
<td>Causes serious eye irritation</td>
<td>• Wash hands and face thoroughly after handling.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wear eye protection/face protection. Chemical resistant goggles or a face shield is appropriate for the manufacturing environment.</td>
</tr>
</tbody>
</table>

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

General Precautionary Statements: Keep out of reach of children. Read insert/label before use. Store in a cool place. Avoid contamination of product. Discontinue use if rash, redness, or itching occurs.

Hazard Not Otherwise Classified: Harmful if swallowed. Overexposure may cause skin dryness or slight irritation. Prolonged contact may whiten skin. May cause irritation of gastric mucous membranes if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>7722-84-1</td>
<td>&lt; 8%</td>
</tr>
<tr>
<td>White Mineral Oil</td>
<td>8042-47-5</td>
<td>≤ 20%</td>
</tr>
</tbody>
</table>
SECTION 4: FIRST AID MEASURES

Response Statements:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Get medical advice/attention.

IF ON SKIN: Wash with plenty of water. **If skin irritation occurs:** Get medical attention. Remove contaminated clothing and launder it before reuse.

In cases where discomfort persists and/or medical attention is sought, do not use hair color products again until the specific nature of the skin reaction and the causative agent has been identified by a dermatologist and appropriate medical advice provided.

IF INHALED: Remove individual to fresh air and keep in a position comfortable for breathing. Call a Poison Control Center if individual feels unwell.

IF SWALLOWED: Do not induce vomiting. Rinse mouth with water then drink plenty of water. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if overexposed. Whitening of skin upon prolonged contact.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Chemical foam, dry chemical, carbon dioxide (CO₂), or water spray. Selection of a fire extinguisher should be appropriate to address the location of the fire and other materials involved.

**SPECIFIC FIRE AND EXPLOSION HAZARDS:** Upon decomposition, material yields oxygen and may increase the burning rate of flammable/combustible materials. Extinguish fires with media appropriate for the burning material.

**PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:** Firefighters should wear self-contained breathing apparatus and full protective gear.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**Non-Emergency Personnel Precautions:** Consult trained response personnel for clean-up of large spills or in locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources cannot be controlled. Sections 2, 5, 7, and 8 should be consulted upon use of material, to become knowledgeable of the material’s hazards and how to control associated risks.

If the location is not hazardous and only a small amount of material has been released: Dilute with water, absorb liquid with noncombustible material, and scrub the area with detergent. If potentially combustible materials (e.g. paper towels, sponges, mops) are used, rinse thoroughly prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.
PERSONAL PROTECTIVE EQUIPMENT: Plastic or nitrile gloves, safety glasses/goggles, and protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but maybe used if occupational exposure limits are expected to be exceeded. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Dike and contain any free liquid. Solidify with vermiculite, spill pillows, or other suitable absorbent. Place solidified materials in containers suitable for disposal. Residual product on towels, sponges, or mops may cause spontaneous combustion. Thoroughly rinse potentially combustible material prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin, eyes, and clothing. Refer to Section 8 for personal protective equipment selection. Do not eat, drink, or smoke while working with material. Wash hands and face thoroughly after handling. Do not expose to heat and flame. Use only in well ventilated areas. Avoid contamination with combustible organic materials (e.g. oil, sawdust, damp paper towels, etc…), metal, powder or reducing agents. Contamination may cause decomposition, leading to fire. Never return unused material to original container. Empty containers should be rinsed with water before discarding. Use only glass, stainless steel, aluminum, or plastic utensils.

Maintain a safe work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc…), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents.

Conditions for safe storage: Store in the original tightly capped containers away from sunlight, heat, sparks, and flame. Keep in a cool and well-ventilated area. Keep container closed when not in use. Do not store any tint, lighter lotion or bleach powder after it has been mixed with developer; the container may rupture. Store separately from any combustible materials. Decomposition of hydrogen peroxide may cause increase in pressure and possible container rupture.

Keep away from open drains and protect from releases to the environment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL/CEILING ppm</th>
<th>STEL/CEILING mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide (7722-84-1)</td>
<td>OSHA PEL</td>
<td>1</td>
<td>1.4</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV</td>
<td>1</td>
<td>1.4</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>1</td>
<td>1.4</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Mineral Oil (Highly Refined)</td>
<td>ACGIH TLV</td>
<td>--</td>
<td>5 (Inhalable)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Oil Mist, Mineral (8012-95-1)</td>
<td>OSHA PEL</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>10</td>
</tr>
</tbody>
</table>

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of oxidizing materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.
PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, butyl rubber, nitrile rubber, or viton gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear to white water-thin liquid or viscous creamy emulsion.

ODOR: Material has faint fragranced odor.

ODOR THRESHOLD: Not Available

pH: 2.0 – 4.3

MELTING/FREEZING POINT: F: ~32 C: ~0

BOILING POINT: F: ~212 C: ~100

FLASH POINT: F: >200 C: >93.4  METHOD USED: Not Applicable

EVAPORATION RATE: <1 for product  (Butyl acetate = 1)

FLAMMABILITY: Not Applicable

FLAMMABLE LIMITS IN AIR: Not Available

VAPOR PRESSURE (mmHg): @ 86 F; 30 C: ~31

VAPOR DENSITY (AIR = 1): Not Available

RELATIVE DENSITY (H2O = 1): ≥ 0.93

SOLUBILITY IN WATER: Miscible

PARTITION COEFFICIENT: log P_ow: -1.1 (20% H_2O_2 Solution)

AUTOIGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Available (free flowing to creamy emulsion)
SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Contained material may show increases in pressure upon exposure to radiant heat (sunlight) or sources of ignition.

STABILITY: Product is stable under standard pressure and temperature.

POSSIBILITY OF HAZARDOUS REACTIONS: Contact with combustible materials may lead to spontaneous combustion. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat and sunlight. Contamination.

INCOMPATIBILITY (MATERIALS TO AVOID): Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc...), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents. Do not use metallic bowls and stirrers.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITATION: Causes eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: Harmful if swallowed. May cause irritation of gastric mucous membranes if swallowed.
INHALATION: May cause mild transient respiratory irritation

ROUTES OF EXPOSURE: Eyes, skin, inhalation, ingestion

SYMPTOMS: Symptoms may include watering, stinging, and redness of eye or blurry vision with direct contact. Prolonged contact may cause temporary whitening of the skin; redness and blisters may develop if skin is not washed promptly.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing dermatitis made be made worse by exposure.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD₅₀</td>
<td>Rat</td>
<td>&gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Dermal LD₅₀</td>
<td>Rabbit</td>
<td>9,200 mg/kg</td>
</tr>
<tr>
<td>Dermal LD₅₀</td>
<td>Rabbit</td>
<td>&gt;2,000 mg/kg</td>
</tr>
<tr>
<td>LC₅₀ (4 hr, vapor)</td>
<td>Rat</td>
<td>170 mg/m³</td>
</tr>
<tr>
<td>RD₅₀ (aerosol)</td>
<td>Mouse</td>
<td>665 mg/m³</td>
</tr>
<tr>
<td>Oral LD₅₀</td>
<td>Rat</td>
<td>&gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Dermal LD₅₀</td>
<td>Rabbit</td>
<td>&gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>LC₅₀ (4 hr, Mists)</td>
<td>Rat</td>
<td>&gt; 5.2 mg/L</td>
</tr>
</tbody>
</table>
Skin Corrosion/Irritation:
Hydrogen Peroxide: 3-8% - Not Irritating; 10% - Slightly Irritating; 35% - Moderately Irritating (1.6/8.0); >50% - Corrosive
Mineral Oil: Not Irritating

Serious Eye Damage/Irritation:
Hydrogen Peroxide: 5% - Slightly Irritating; 8% - Moderately Irritating; 10% - Highly Irritating; 12% - Corrosive
Mineral Oil: Slightly Irritating

Skin Sensitization:
Hydrogen Peroxide: Not considered to be a sensitizer
Mineral Oil: Not considered to be a sensitizer

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Hydrogen Peroxide, oral): 100 ppm (26 mg/kg bw male mice)
LOAEL (Hydrogen Peroxide, oral): 300 ppm (76 mg/kg bw male mice)
NOAEL (Mineral Oil, oral): 2 - 4,350 mg/kg bw male/female rats
LOAEL (Mineral Oil, oral): 1.7 - 340 mg/kg/day male/female rats

ASPIRATION:
Aspiration of mineral oil into the lungs may cause chemical pneumonitis or pulmonary edema. As a complete mixture, low volume developers containing mineral oil are not expected to pose an aspiration hazard.

CARCINOGENICITY:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>NTP</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide (7722-84-1)</td>
<td>--</td>
<td>TLV-A3</td>
<td>--</td>
<td>IARC-3</td>
</tr>
<tr>
<td>Mineral Oils, highly refined</td>
<td>--</td>
<td>TLV-A4</td>
<td>--</td>
<td>IARC-3</td>
</tr>
</tbody>
</table>

Notes:
ACGIH TLV-A3 - This reference indicates that the material is “Confirmed Animal Carcinogen with Unknown Relevance to Humans”.
ACGIH TLV-A4 – This reference indicates that the material is “Not Classifiable as a Human Carcinogen”.
IARC-3 - This reference indicates that the material is “Unclassifiable as to Carcinogenicity to Humans”.

MUTAGENICITY:
Hydrogen peroxide (in high percentages) has been shown to be a mutagen in a variety of in vitro test systems. Available studies are not in support of a significant mutagenicity for hydrogen peroxide under in vivo conditions.

Mineral Oil has provided negative results in a variety of in vitro tests.

REPRODUCTIVE TOXICITY:
Mineral Oil: No adverse effects (NOAEL > 4,350 mg/kg bw)

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Mineral Oil: No maternal toxicity or teratogenic effects (NOAEL > 4,350 mg/kg bw)

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. Published information regarding ingredients listed in this document are found below; where data is not listed, documentation was unavailable.
ACUTE AND PROLONGED TOXICITY TO FISH

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>LC₅₀ (US EPA)</td>
<td>16.4 mg/l</td>
<td>Pimephales promelas</td>
<td>96 h</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>LC₅₀</td>
<td>37.4 mg/L</td>
<td>Ictalurus punctatus</td>
<td>96 h</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>LC₅₀</td>
<td>&gt; 1000 mg/L</td>
<td>Oncorhynchus mykiss</td>
<td>96 h</td>
</tr>
</tbody>
</table>

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC₅₀</td>
<td>2.0-2.6 mg/L</td>
<td>Daphnia magna</td>
<td>24 h</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC₅₀ (US EPA)</td>
<td>2.4 mg/L</td>
<td>Daphnia pulex</td>
<td>48 h</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>EC₅₀</td>
<td>&gt; 100 mg/L</td>
<td>Daphnia magna</td>
<td>48 h</td>
</tr>
</tbody>
</table>

TOXICITY TO AQUATIC PLANTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC₅₀ (OECD 201)</td>
<td>2.5 mg/L</td>
<td>Chlorella vulgaris</td>
<td>72 h</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC₅₀ (OECD 201)</td>
<td>0.63 mg/L</td>
<td>Skeletonema costatum</td>
<td>72 h</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>EC₅₀ (OECD 201)</td>
<td>≥ 100 mg/L</td>
<td>Pseudokirchneriella subcapitata</td>
<td>72 h</td>
</tr>
</tbody>
</table>

TOXICITY TO MICROORGANISMS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC₅₀ (OECD 209)</td>
<td>466 mg/l</td>
<td>Activated Sludge</td>
<td>30 min</td>
</tr>
</tbody>
</table>

PERSISTENCY AND DEGRADABILITY:

Hydrogen Peroxide:
Hydrogen peroxide is biologically degradable. Hydrogen peroxide can be considered as readily biodegradable in the aquatic systems. In soil hydrogen peroxide is normally a short-lived substance. Hydrogen peroxide degrades in the atmosphere within the light spectrum with hydroxyl radicals in the gas phase and subsequent photolysis.

Mineral Oil:
Mineral oil has shown evidence of primary biodegradability. Mineral oil has little to no tendency to partition to air, but any material that does will be rapidly photodegraded.

BIOACCUMULATIVE POTENTIAL:

Hydrogen peroxide is reactive and short-lived polar substance and no bioaccumulation is expected. The estimated log \( K_{ow} \) of about -1.5 indicates negligible potential of bioconcentration in aquatic organisms. BCFs calculated according to the TGD for fish and earthworm are low, 1.4 and 3.3, respectively.

SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL CONTAINERS: Containers should be completely closed and of sturdy construction. Packaging materials should not include incompatible materials noted in Section 10. Plastic packaging is recommended.

WASTE DISPOSAL METHOD: Low volume developer products are non-hazardous materials when intended for disposal. Although dilute (<8%) hydrogen peroxide solutions are not regulated as hazardous wastes under RCRA, physical and/or chemical deactivation/degradation of the peroxide solution is the recommended method of treatment and disposal for these products.

RCRA HAZARD CLASS: Not regulated

Follow all local governmental requirements intended for disposal.
SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation
- In Consumer Packaging: Not regulated
- OTHER THAN CONSUMER PACKAGING: Not regulated

Transport Via Water
- In Consumer Packaging: Not regulated
- OTHER THAN CONSUMER PACKAGING: Not regulated

Transport Via Air
- In Consumer Packaging: Not regulated
- OTHER THAN CONSUMER PACKAGING: Not regulated

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 0 Reactivity: 1 Other: None

Workplace Hazardous Materials Identification System: Class D; Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated June 22, 2009 and all previous versions of safety data sheets related to this product.

Preparer: Ronald Weslosky/Chandra L. Jennings
SAFETY DATA SHEET
ISSUANCE DATE: July 17, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

24 Hour Emergency Telephone Number:
1-800-535-5053 (US)
01-352-323-3500 (Outside US)

For further information:
1-732-499-2741

Product Name: > 25 Volume Hair Developer and Other Products Containing ≥ 8% Hydrogen Peroxide

Recommendations on use: Liquid developer for promoting deposit of hair color.

Restrictions on use: Refer to product insert/container for use warnings. For external use only. Use only as directed.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: DANGER

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hazard Statement</th>
<th>Prevention Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Eye Damage – Category 1</td>
<td>Causes serious eye damage</td>
<td>• Wear eye protection/face protection. Chemical resistant goggles or a face shield is appropriate for the manufacturing environment.</td>
</tr>
<tr>
<td>Oxidizing Liquid – Category 3</td>
<td>May intensity fire, oxidizer</td>
<td>• Keep away from heat.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Storage away from combustibles (e.g. paper), organics, and metals (e.g. iron).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Take precaution to avoid mixing with combustible and organic materials.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wear protective gloves and eye/face protection when in the manufacturing environment.</td>
</tr>
</tbody>
</table>

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

General Precautionary Statements: Keep out of reach of children. Read insert/label before use. Store in a cool place. Avoid contamination of product. Discontinue use if rash, redness, or itching occurs.

Hazards Not Otherwise Classified: Harmful if swallowed. Overexposure may cause skin dryness or slight irritation. Prolonged contact may whiten skin. May cause irritation of gastric mucous membranes if swallowed.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>7722-84-1</td>
<td>8% - 12%</td>
</tr>
<tr>
<td>White Mineral Oil</td>
<td>8042-47-5</td>
<td>≤ 50%</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

Response Statements:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Immediately call a poison control center or get medical advice/attention.

IF ON SKIN: Wash with plenty of water. **If skin irritation occurs:** Get medical attention. Remove contaminated clothing and launder it before reuse.

In cases where discomfort persists and/or medical attention is sought, do not use hair color products again until the specific nature of the skin reaction and the causative agent has been identified by a dermatologist and appropriate medical advice provided.

IF INHALED: Remove individual to fresh air and keep in a position comfortable for breathing. Call a Poison Control Center if individual feels unwell.

IF SWALLOWED: Do not induce vomiting. Rinse mouth with water then drink plenty of water. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if overexposed. Whitening of skin upon prolonged contact.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use chemical foam, dry chemical, carbon dioxide (CO₂), or water spray. Selection of a fire extinguisher should be appropriate to address the location of the fire and other materials involved.

SPECIFIC FIRE AND EXPLOSION HAZARDS: Upon decomposition, material yields oxygen and may increase the burning rate of flammable/combustible materials. Extinguish fires with media appropriate for the burning material.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Firefighters should wear self-contained breathing apparatus and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions: Consult trained response personnel for clean-up of large spills or in locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources cannot be controlled. Sections 2, 5, 7, and 8 should be consulted upon use of material, to become knowledgeable of the material's hazards and how to control associated risks.
If the location is not hazardous and only a small amount of material has been released: Dilute with water, absorb liquid with noncombustible material, and scrub the area with detergent. If potentially combustible materials (e.g. paper towels, sponges, mops) are used, rinse thoroughly prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or nitrile gloves, safety glasses/goggles, and protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but may be used if occupational exposure limits are expected to be exceeded. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Dike and contain any free liquid. Solidify with vermiculite, spill pillows, or other suitable absorbent. Place solidified materials in containers suitable for disposal. Residual product on towels, sponges, or mops may cause spontaneous combustion. Thoroughly rinse potentially combustible material prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin, eyes, and clothing. Refer to Section 8 for personal protective equipment selection. Do not eat, drink, or smoke while working with material. Wash hands and face thoroughly after handling. Do not expose to heat and flame. Use only in well ventilated areas. Avoid contamination with combustible organic materials (e.g. oil, sawdust, damp paper towels, etc…), metal, powder or reducing agents. Contamination may cause decomposition, leading to fire. Never return unused material to original container. Empty containers should be rinsed with water before discarding. Use only glass, stainless steel, aluminum, or plastic utensils. Maintain a safe work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc…), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents.

Conditions for safe storage: Store in the original tightly capped containers away from sunlight, heat, sparks, and flame. Keep in a cool and well-ventilated area. Keep container closed when not in use. Do not store any tint, lightener lotion or bleach powder after it has been mixed with developer; the container may rupture. Store separately from any combustible materials. Decomposition of hydrogen peroxide may cause increase in pressure and possible container rupture. Keep away from open drains and protect from releases to the environment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>Reference</th>
<th>TWA</th>
<th>STEL/CEILING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide (7722-84-1)</td>
<td>OSHA PEL</td>
<td>1.4 ppm</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV</td>
<td>1.4 ppm</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>1.4 ppm</td>
<td>--</td>
</tr>
<tr>
<td>Mineral Oil (Highly Refined)</td>
<td>ACGIH TLV</td>
<td>-- ppm</td>
<td>5 (Inhalable)</td>
</tr>
<tr>
<td>Oil Mist, Mineral (8012-95-1)</td>
<td>OSHA PEL</td>
<td>-- ppm</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>-- ppm</td>
<td>5</td>
</tr>
</tbody>
</table>
WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of oxidizing materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, butyl rubber, nitrile rubber, or viton gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear to white water-thin liquid or viscous creamy emulsion.

ODOR: Material has faint fragranced odor.

ODOR THRESHOLD: Not Available

pH: 2.0 – 4.3

MELTING/FREEZING POINT: F: ~32 C: ~0

BOILING POINT: F: ~212 C: ~100

FLASH POINT: F: >200 C: >93.4 METHOD USED: Not Applicable

EVAPORATION RATE: <1 for product (Butyl acetate = 1)

FLAMMABILITY: Not Applicable

FLAMMABLE LIMITS IN AIR: Not Available

VAPOR PRESSURE (mmHg): @ 86 F; 30 C: ~31

VAPOR DENSITY (AIR = 1): Not Available

RELATIVE DENSITY (H2O = 1): ≥ 0.93

SOLUBILITY IN WATER: Miscible

PARTITION COEFFICIENT: log P_{ow}: -1.1 (20% H2O2 Solution)

AUTOIGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Available (free flowing to creamy emulsion)
SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Contained material may show increases in pressure upon exposure to radiant heat (sunlight) or sources of ignition.

STABILITY: Product is stable under standard pressure and temperature.

POSSIBILITY OF HAZARDOUS REACTIONS: Contact with combustible materials may lead to spontaneous combustion. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat and sunlight. Contamination.

INCOMPATIBILITY (MATERIALS TO AVOID): Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc...), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents. Do not use metallic bowls and stirrers.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

ACUTE HEALTH EFFECTS:

SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness

SERIOUS EYE DAMAGE/IRRITATION: Causes eye damage

RESPIRATORY/SKIN SENSITIZATION: None expected

INGESTION: Harmful if swallowed. May cause irritation of gastric mucous membranes if swallowed.

INHALATION: May cause mild transient respiratory irritation

ROUTES OF EXPOSURE: Eyes, skin, inhalation, ingestion

SYMPTOMS: Symptoms may include watering, stinging, and redness of eye or blurry vision with direct contact. Prolonged contact may cause temporary whitening of the skin; redness and blisters may develop if skin is not washed promptly.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing dermatitis made be made worse by exposure.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide (10%)</td>
<td>Oral LD₅₀</td>
<td>Rat &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Hydrogen Peroxide (70%)</td>
<td>Dermal LD₅₀</td>
<td>Rabbit 9,200 mg/kg</td>
</tr>
<tr>
<td>Hydrogen Peroxide (35%)</td>
<td>Dermal LD₅₀</td>
<td>Rabbit &gt;2,000 mg/kg</td>
</tr>
<tr>
<td>Hydrogen Peroxide (50%)</td>
<td>LC₉₅ (4 hr, vapor)</td>
<td>Rat 170 mg/m³</td>
</tr>
<tr>
<td>Hydrogen Peroxide (70%)</td>
<td>RD₅₀ (aerosol)</td>
<td>Mouse 665 mg/m³</td>
</tr>
<tr>
<td>White Mineral Oil</td>
<td>Oral LD₅₀</td>
<td>Rat &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>White Mineral Oil</td>
<td>Dermal LD₅₀</td>
<td>Rabbit &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>White Mineral Oil</td>
<td>LC₉₅ (4 hr, Mists)</td>
<td>Rat &gt; 5.2 mg/L</td>
</tr>
</tbody>
</table>
Skin Corrosion/Irritation:
Hydrogen Peroxide: 3-8% - Not Irritating; 10% - Slightly Irritating; 35% - Moderately Irritating (1.6/8.0); >50% - Corrosive
Mineral Oil: Not Irritating

Serious Eye Damage/Irritation:
Hydrogen Peroxide: 5% - Slightly Irritating; 8% - Moderately Irritating; 10% - Highly Irritating; 12% - Corrosive
Mineral Oil: Slightly Irritating

Skin Sensitization:
Hydrogen Peroxide: Not considered to be a sensitizer
Mineral Oil: Not considered to be a sensitizer

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Hydrogen Peroxide, oral): 100 ppm (26 mg/kg bw male mice)
LOAEL (Hydrogen Peroxide, oral): 300 ppm (76 mg/kg bw male mice)
NOAEL (Mineral Oil, oral): 2 - 4,350 mg/kg bw male/female rats
LOAEL (Mineral Oil, oral): 1.7 - 340 mg/kg/day male/female rats

ASPIRATION:
Aspiration of mineral oil into the lungs may cause chemical pneumonitis or pulmonary edema. As a complete mixture, low volume developers containing mineral oil are not expected to pose an aspiration hazard.

CARCINOGENICITY:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>NTP</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide (7722-84-1)</td>
<td>--</td>
<td>TLV-A3</td>
<td>--</td>
<td>IARC-3</td>
</tr>
<tr>
<td>Mineral Oils, highly refined</td>
<td>--</td>
<td>TLV-A4</td>
<td>--</td>
<td>IARC-3</td>
</tr>
</tbody>
</table>

Notes:
ACGIH TLV-A3 - This reference indicates that the material is “Confirmed Animal Carcinogen with Unknown Relevance to Humans”.
ACGIH TLV-A4 – This reference indicates that the material is “Not Classifiable as a Human Carcinogen”.
IARC-3 - This reference indicates that the material is “Unclassifiable as to Carcinogenicity to Humans”.

MUTAGENICITY:
Hydrogen peroxide (in high percentages) has been shown to be a mutagen in a variety of in vitro test systems. Available studies are not in support of a significant mutagenicity for hydrogen peroxide under in vivo conditions.

Mineral Oil has provided negative results in a variety of in vitro tests.

REPRODUCTIVE TOXICITY:
Mineral Oil: No adverse effects (NOAEL > 4,350 mg/kg bw)

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Mineral Oil: No maternal toxicity or teratogenic effects (NOAEL > 4,350 mg/kg bw)

SECTION 12: ECOLOGICAL INFORMATION
Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. Published information regarding ingredients listed in this document are found below; where data is not listed, documentation was unavailable.
## ACUTE AND PROLONGED TOXICITY TO FISH

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt; (US EPA)</td>
<td>16.4 mg/l</td>
<td>Pimephales promelas</td>
<td>96 h</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>37.4 mg/L</td>
<td>Ictalurus puctatus</td>
<td>96 h</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>&gt; 1000 mg/L</td>
<td>Oncorhynchus mykiss</td>
<td>96 h</td>
</tr>
</tbody>
</table>

## ACUTE TOXICITY TO AQUATIC INVERTEBRATES

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>2.0-2.6 mg/L</td>
<td>Daphnia magna</td>
<td>24 h</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt; (US EPA)</td>
<td>2.4 mg/L</td>
<td>Daphnia pulex</td>
<td>48 h</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>&gt; 100 mg/L</td>
<td>Daphnia magna</td>
<td>48 h</td>
</tr>
</tbody>
</table>

## TOXICITY TO AQUATIC PLANTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt; (OECD 201)</td>
<td>2.5 mg/L</td>
<td>Chlorella vulgaris</td>
<td>72 h</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt; (OECD 201)</td>
<td>0.63 mg/L</td>
<td>Skeletonema costatum</td>
<td>72 h</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt; (OECD 201)</td>
<td>≥ 100 mg/L</td>
<td>Pseudokirchneriella subcapitata</td>
<td>72 h</td>
</tr>
</tbody>
</table>

## TOXICITY TO MICROORGANISMS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt; (OECD 209)</td>
<td>466 mg/l</td>
<td>Activated Sludge</td>
<td>30 min</td>
</tr>
</tbody>
</table>

## PERSISTENCY AND DEGRADABILITY:

**Hydrogen Peroxide:**
Hydrogen peroxide is biologically degradable. Hydrogen peroxide can be considered as readily biodegradable in the aquatic systems. In soil hydrogen peroxide is normally a short-lived substance. Hydrogen peroxide degrades in the atmosphere within the light spectrum with hydroxyl radicals in the gas phase and subsequent photolysis.

**Mineral Oil:**
Mineral oil has shown evidence of primary biodegradability. Mineral oil has little to no tendency to partition to air, but any material that does will be rapidly photodegraded.

## BIOACCUMULATIVE POTENTIAL:

Hydrogen peroxide is reactive and short-lived polar substance and no bioaccumulation is expected. The estimated log K<sub>ow</sub> of about -1.5 indicates negligible potential of bioconcentration in aquatic organisms. BCFs calculated according to the TGD for fish and earthworm are low, 1.4 and 3.3, respectively.

## SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to section 8 of this document for advice on personal protective equipment and exposure controls.

**WASTE DISPOSAL CONTAINERS:** Containers should be completely closed and meet applicable USDOT packaging specifications. Packaging materials should not include incompatible materials noted in Section 10. Plastic packaging is recommended.

**WASTE DISPOSAL METHOD:** High volume developer products are RCRA ignitable hazardous waste when intended for disposal. Physical and/or chemical deactivation/degradation of the peroxide solution is the recommended method of treatment and disposal for these products.

**RCRA HAZARD CLASS:** D001

Follow all local governmental requirements intended for disposal.
SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation
• IN CONSUMER PACKAGING: Limited Quantity/Consumer Commodity (≤ 5L)
  
• OTHER THAN CONSUMER PACKAGING:
  UN ID Number: UN 2984  
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions  
  Hazard Class: 5.1  
  Packing Group: III  
  Label Statements: Oxidizer (Division 5.1)

Transport Via Water
• IN CONSUMER PACKAGING: Limited Quantity (≤ 5L)
  UN ID Number: UN 2984  
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions  
  Hazard Class: 5.1  
  Packing Group: III  
  Label Statements: Oxidizer (Division 5.1)

• OTHER THAN CONSUMER PACKAGING:
  UN ID NUMBER: UN 2984  
  PROPER SHIPPING NAME: Hydrogen Peroxide, aqueous solutions  
  HAZARD CLASS: 5.1  
  PACKING GROUP: III  
  LABEL STATEMENTS: Oxidizer (Division 5.1)

Transport Via Air (Domestic/International)
• IN CONSUMER PACKAGING: Limited Quantity (≤ 0.5L)
  UN ID Number: UN 2984  
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions  
  Hazard Class: 5.1  
  Packing Group: III  
  Label Statements: Oxidizer (Division 5.1)

• OTHER THAN CONSUMER PACKAGING:
  UN ID Number: UN 2984  
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions  
  Hazard Class: 5.1  
  Packing Group: III  
  Label Statements: Oxidizer (Division 5.1)

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 3 Fire: 0 Reactivity: 1 Other: None

Workplace Hazardous Materials Identification System: Class C; Oxidizing Material ; Class E; Corrosive Material

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated June 22, 2009 and all previous versions of safety data sheets related to this product.

Preparer: Ronald Weslosky/Chandra L. Jennings
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.  
111 Terminal Avenue  
Clark, NJ 07066  

Emergency Telephone Number  
800-535-5053 (International: 352-323-3500)  

For further information:  
732-499-2741

Product Name: Oxidizing Hair Bleach Products

Recommendations on use: For lightening of hair color

CAUTION: Oxidizing solid which in itself is not necessarily combustible, but may generally cause or contribute to the combustion of other materials by yielding oxygen. Store at room temperature. Keep from heat and moisture. Do not use metal utensils with this product. For external use only. Use only as directed. Keep out of reach of children.

Refer to product insert or container for additional use warnings.

SECTION 2: HAZARDS IDENTIFICATION

Finely divided, free-flowing powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

Decomposes in contact with moisture/excessive heat. May cause release of oxygen and oxides of sulfur which support combustion. Decomposition could form a high temperature melt. See section ten of this document (Stability and Reactivity).

May have irritating properties to eyes/respiratory system and skin. May have the potential to cause skin/respiratory sensitization.

OSHA reactive substance, oxidizer; DOT 5.1 Oxidizer; WHMIS Class C; Oxidizing material. See section fifteen of this document (Regulatory Information).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Persulfate</td>
<td>7727-21-1</td>
<td>&lt;61</td>
</tr>
<tr>
<td>Sodium Persulfate</td>
<td>7775-27-1</td>
<td>&lt;11</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with luke-warm water and get medical attention if irritation persists.

SKIN: Immediately flush with luke-warm water and get medical attention if irritation persists.

INGESTION: If swallowed, do not induce vomiting. Call a physician, hospital, emergency room or poison control center immediately. Get prompt medical attention.

INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes/respiratory system and skin.
SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Water and/or foam – typically a Class A or Class B extinguisher should be sufficient for the product. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved.

SPECIAL FIRE FIGHTING PROCEDURES: Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Caution: Product contains oxidizing materials. Residual product on towels, sponges or mops may cause fire. Rinse towels thoroughly before disposal. Rinse sponges and mops thoroughly before storage. Persulfate compounds may ignite and undergo decomposition in the presence of moisture and heat. Spray and flood decomposing material with large quantities of water.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: For small spills, wipe up with damp paper towels or sponge. Wash area completely with water. Rinse paper towels, sponges or mops thoroughly prior to disposal or storage. For larger quantities, sweep up and place in UN specification drum(s) for disposal. During clean-up, do not contaminate powder with organic material. Keep drummed waste cool and dry pending disposal.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. Do not store with or near fuels, solvents or other organic materials. Avoid heat, moisture and reducing agents.

Refer to product insert or container for additional use warnings.

OTHER PRECAUTIONS: Do not allow stored material to come into contact with moisture (keep lids properly affixed on product stored in plastic tubs). Do not store metal utensils inside containers of product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Particulate filtering cartridges should be utilized with air-purifying respiratory protection.

EYE PROTECTION: None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.
SKIN PROTECTION: Plastic or rubber gloves should be worn during product application and preparation. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should also be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron may be used for product handling. Tyvek clothing may also be suitable for handling large quantities of material.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are clean. Metal instruments should not be used with this product or stored inside product containers.

Occupational Exposure Values:

<table>
<thead>
<tr>
<th></th>
<th>OSHA PEL-TWA:</th>
<th>ACGIH TLV-TWA:</th>
<th>OSHA PEL/ACGIH TLV STEL:</th>
<th>OSHA PEL/ACGIH TLV CEILING:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Persulfate</td>
<td>None Established</td>
<td>Potassium Persulfate: 0.1 mg/m3</td>
<td>None Established</td>
<td>None Established</td>
</tr>
</tbody>
</table>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Finely divided, free-flowing powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

PHYSICAL STATE: Finely divided, free-flowing powder (solid).

BOILING POINT: F: N/A C: N/A MELTING POINT: Decomposes

FREEZING POINT: F: N/A C: N/A

VAPOR PRESSURE (mmHg): @ F: N/A C: N/A

VAPOR DENSITY (AIR = 1): @ F: N/A C: N/A

SPECIFIC GRAVITY (H2O = 1): >1 EVAPORATION RATE: N/A

SOLUBILITY IN WATER: Approx 80% water soluble

FLAMMABLE LIMITS IN AIR (% BY VOLUME): UPPER: N/A LOWER: N/A

FLASH POINT: F: N/A C: N/A METHOD USED: N/A

AUTOIGNITION TEMPERATURE: F: N/A C: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Material is stable at room temperature and under dry conditions. Heat and/or moisture may cause instability.

CONDITIONS TO AVOID (STABILITY): Heat, moisture and contamination with organic materials and metal utensils.

INCOMPATIBILITY (MATERIALS TO AVOID): Organic compounds (including flammable and combustible materials) and reducing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

HAZARDOUS POLYMERIZATION: Will not occur CONDITIONS TO AVOID (POLYMERIZATION): N/A
SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:
OSHA: Not recognized as carcinogenic  ACGIH: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic  IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE: Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:
  EYES: Irritation  INGESTION: Harmful if swallowed, slightly toxic
  SKIN: Irritation, possible allergic dermatitis  INHALATION: Irritation and possible sensitization

ACUTE HEALTH HAZARDS: Irritation of eyes, skin and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

CHRONIC HEALTH HAZARDS: Possible allergic dermatitis. Possible respiratory sensitization could occur.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.

SECTION 12: ECOLOGICAL INFORMATION

The product itself has not been tested as a whole, but the following results have been associated with some of its constituents:

Potassium/Sodium Persulfate:

Bluegill sunfish, 96-hour LC50 = 771 mg/L
Rainbow Trout, 96-hour LC50 = 163 mg/L
Daphnia, 48-hour LC50 = 133 mg/L
Grass shrimp, 96 hour LC50 = 519 mg/L

CHEMICAL FATE: Biodegradability does not apply to inorganic substances.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Hair bleaching products are ignitable RCRA hazardous wastes when intended for disposal. Physical and/or chemical deactivation/degradation is the required method of treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.
SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- In Consumer Packaging: ORM-D; Consumer Commodity

- OTHER THAN CONSUMER PACKAGING:
  
  | ID NUMBER: | UN 1479 |
  | PROPER SHIPPING NAME: | Oxidizing solid, n.o.s. |
  | TECHNICAL NAME: | (Potassium Persulfate, Sodium Persulfate) |
  | HAZARD CLASS: | 5.1 |
  | PACKING GROUP: | III |
  | LABEL STATEMENTS: | Oxidizer 5.1 (see label on next page) |

Transport Via Water

- In Consumer Packaging: Limited Quantity < 5 kg
  
  | ID NUMBER: | UN 1479 |
  | PROPER SHIPPING NAME: | Oxidizing solid, n.o.s. |
  | TECHNICAL NAME: | (Potassium Persulfate, Sodium Persulfate) |
  | HAZARD CLASS: | 5.1 |
  | PACKING GROUP: | III |
  | LABEL STATEMENTS: | Oxidizer 5.1 or LTD QTY, if applicable (see Division 5.1 label on next page) |

- OTHER THAN CONSUMER PACKAGING:
  
  | ID NUMBER: | UN 1479 |
  | PROPER SHIPPING NAME: | Oxidizing solid, n.o.s. |
  | TECHNICAL NAME: | (Potassium Persulfate, Sodium Persulfate) |
  | HAZARD CLASS: | 5.1 |
  | PACKING GROUP: | III |
  | LABEL STATEMENTS: | Oxidizer 5.1 (see label on next page) |

Transport Via Air

- In Consumer Packaging: Fully Regulated (see classification for “other than consumer packaging” below)
  
  - Limited quantity (maximum net quantity per package) = 10 kg

- OTHER THAN CONSUMER PACKAGING:
  
  | ID NUMBER: | UN 1479 |
  | PROPER SHIPPING NAME: | Oxidizing solid, n.o.s. |
  | TECHNICAL NAME: | (Potassium Persulfate, Sodium Persulfate) |
  | HAZARD CLASS: | 5.1 |
  | PACKING GROUP: | III |
  | LABEL STATEMENTS: | Oxidizer 5.1 (see label on next page) |

Please be aware of carrier transport variations before shipping hazardous materials.
LABELS FOR THIS PRODUCT WHEN NOT SHIPPING AS A CONSUMER COMMODITY

Label for fully regulated materials, Division 5.1:

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes:  Health: 1  Fire: 0  Reactivity: 1  Other:  OX
Hazardous Materials Identification System:  Class C; Oxidizing material
Occupational Safety and Health Administration:  Oxidizing material/reactive, irritant, possible sensitizer, slightly toxic
US DOT/ICAO/IMDG:  See section 14 above

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION:  This document replaces the version dated September 15, 2004 and all previous versions of material safety data sheets related to this product.

Preparer:  Chandra L. Jennings
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.  
111 Terminal Avenue  
Clark, NJ 07066

Emergency Telephone Number  
800-535-5053 (International: 352-323-3500)

For further information:  
732-499-2741

Product Name: Self-heating Hair Bleaches

Recommendations on use: For lightening of hair color

CAUTION: Self-heating solid which can lead to spontaneous combustion. Store at room temperature. Keep from heat and moisture. Do not use metal utensils with this product. For external use only. Use only as directed. Keep out of reach of children.

Refer to product insert or container for additional use warnings.

SECTION 2: HAZARDS IDENTIFICATION

Thick, grainy hair paste or finely divided powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

Could decompose in contact with moisture/excessive heat. May cause release of oxygen and oxides of sulfur which support combustion. Decomposition could form a high temperature melt. See section ten of this document (Stability and Reactivity).

May have irritating properties to eyes/respiratory system and skin. May have the potential to cause skin/respiratory sensitization. Respiratory sensitization is more common when using powered forms of hair bleach products.

OSHA reactive substance; DOT 4.2 spontaneously combustible solid; WHMIS Class B Division 6 Flammable Reactive Material (solid). See section fifteen of this document (Regulatory Information).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Persulfate</td>
<td>7727-21-1</td>
<td>&lt;61</td>
</tr>
<tr>
<td>Sodium Persulfate</td>
<td>7775-27-1</td>
<td>&lt;11</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation persists.

SKIN: Wash off with water. Get medical attention if irritation persists.

INGESTION: If swallowed, do not induce vomiting. Call a physician, hospital, emergency room or poison control center immediately. Get prompt medical attention.

INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.
NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes/respiratory system and skin.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Water and/or foam – typically a Class A or Class B extinguisher should be sufficient for the product. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved.

SPECIAL FIRE FIGHTING PROCEDURES: Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Caution: Product contains oxidizing materials, but is not an oxidizing material itself. Residual product on towels, sponges or mops may cause fire. Rinse towels thoroughly before disposal. Rinse sponges and mops thoroughly before storage. Persulfate compounds may ignite and undergo decomposition in the presence of moisture and heat. Spray and flood decomposing material with large quantities of water.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: For small spills, wipe up with damp paper towels or sponge. Wash area completely with water. Rinse paper towels, sponges or mops thoroughly prior to disposal or storage. For larger quantities, pick up with shovels or sponges and place in UN specification drum(s) for disposal. During clean-up, do not contaminate product with organic material. Keep drummed waste cool and dry pending disposal.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. Do not store with or near fuels, solvents or other organic materials. Avoid heat, moisture and reducing agents.

Refer to product insert or container for additional use warnings

OTHER PRECAUTIONS: Do not allow stored material to come into contact with moisture (keep lids properly affixed on product stored in plastic tubs). Do not store metal utensils inside containers of product.

SECTION 8: EXPOSURE CONTROLS/PERSOAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Particulate filtering cartridges may be utilized with air-purifying respiratory protection.

EYE PROTECTION: None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.
SKIN PROTECTION: Plastic or rubber gloves should be worn during product application and preparation. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should also be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron may be used for product handling. Tyvek clothing may also be suitable for handling large quantities of material.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are clean. Metal instruments should not be used with this product or stored inside product containers.

Occupational Exposure Values:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA PEL-TWA:</td>
<td>None Established</td>
</tr>
<tr>
<td>ACGIH TLV-TWA:</td>
<td>Sodium Persulfate/Potassium Persulfate: 0.1 mg/m3</td>
</tr>
<tr>
<td>OSHA PEL/ACGIH TLV STEL:</td>
<td>None Established</td>
</tr>
<tr>
<td>OSHA PEL/ACGIH TLV CEILING:</td>
<td>None Established</td>
</tr>
</tbody>
</table>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Thick, grainy paste or free-flowing powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

PHYSICAL STATE: Finely divided, free-flowing powder or thick, grainy paste (solid)

BOILING POINT: F: N/A  C: N/A  FREEZING POINT: F: N/A  C: N/A

MELTING POINT: Decomposes

VAPOR PRESSURE (mmHg): @ F: N/A  C: N/A  VAPOR DENSITY (AIR = 1): @ F: N/A  C: N/A

SPECIFIC GRAVITY (H2O = 1): >1  SOLUBILITY IN WATER: Approx 80% water soluble

EVAPORATION RATE: N/A

FLAMMABLE LIMITS IN AIR (% BY VOLUME): UPPER: N/A  LOWER: N/A

FLASH POINT: F: N/A  C: N/A  METHOD USED: N/A

AUTOIGNITION TEMPERATURE: F: N/A  C: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Material is stable at room temperature and under dry conditions. Heat and/or moisture may cause instability.

CONDITIONS TO AVOID (STABILITY): Heat, moisture, contamination with organic materials and metal utensils.

INCOMPATIBILITY (MATERIALS TO AVOID): Organic compounds (including flammable and combustible materials) and reducing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

HAZARDOUS POLYMERIZATION: Will not occur  CONDITIONS TO AVOID (POLYMERIZATION): N/A
SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:
OSHA: Not recognized as carcinogenic  ACGIH: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic  IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE: Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:
EYES: Irritation
SKIN: Irritation, possible allergic dermatitis
INGESTION: Harmful if swallowed, slightly toxic
INHALATION: Irritation and possible sensitization (more common with powdered formulations)

ACUTE HEALTH HAZARDS: Possibility of eye/skin irritation. Possible allergic dermatitis.

CHRONIC HEALTH HAZARDS: Possible allergic dermatitis. Possible respiratory sensitization which is more common with the use of powdered hair bleaches.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.

SECTION 12: ECOLOGICAL INFORMATION

The product itself has not been tested as a whole, but the following results have been associated with some of its constituents:

Potassium/Sodium Persulfate:
Bluegill sunfish, 96-hour LC50 = 771 mg/L
Rainbow Trout, 96-hour LC50 = 163 mg/L
Daphnia, 48-hour LC50 = 133 mg/L
Grass shrimp, 96 hour LC50 = 519 mg/L

CHEMICAL FATE: Biodegradability does not apply to inorganic substances.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Hair bleaching products are ignitable RCRA hazardous wastes when intended for disposal. Physical and/or chemical deactivation/degredation is the required method of treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.
SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- In Consumer Packaging: Fully Regulated (see reference to “other than consumer packaging” below)

- OTHER THAN CONSUMER PACKAGING:
  ID NUMBER:  UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS:  4.2
  PACKING GROUP:  III
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

Transport Via Water

- In Consumer Packaging: Fully Regulated (see reference to “other than consumer packaging” below)

- OTHER THAN CONSUMER PACKAGING:
  ID NUMBER:  UN 3088
  PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS:  4.2
  PACKING GROUP:  III
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

Transport Via Air

- In Consumer Packaging: Fully Regulated (see classification for “other than consumer packaging” below)

- OTHER THAN CONSUMER PACKAGING:
  ID NUMBER:  UN 3088
  PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS:  4.2
  PACKING GROUP:  III
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

Please be aware of carrier transport variations before shipping hazardous materials
LABELS FOR THIS PRODUCT WHEN NOT SHIPPING AS A CONSUMER COMMODITY

Label for fully regulated materials, Division 4.2:

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes:  Health: 1  Fire: 0  Reactivity: 1  Other:  
Hazardous Materials Identification System:  Class B Division 6 Flammable Reactive Material (solid)  
Occupational Safety and Health Administration:  Reactive, irritant, possible sensitizer, slightly toxic  
US DOT/ICAO/IMDG:  See section 14 above

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION:  This document represents an initial publication of this information.  
Preparer name:  Chandra L. Jennings
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.  
111 Terminal Avenue  
Clark, NJ 07066

Emergency Telephone Number  
800-535-5053 (International: 352-323-3500)

For further information:  
732-499-2741

Product Name: Aqueous cosmetic liquids -- creams, gels and lotions containing <24% alcohol

Recommendations on use:  Personal care product used as a topical skin application for moisturization, sun protection and/or cosmetic skin treatment.

Restrictions on use:  Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Liquid dispensed from the container may be considered flammable until dry.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Classification</th>
<th>Hazard Statement</th>
<th>Prevention Statements</th>
</tr>
</thead>
</table>
| ![Flammable Liquids - Category 3](image) | Flammable Liquids – Category 3 | Flammable liquid and vapor | • Keep away from heat, sparks, open flames and hot surfaces. Do not use while smoking.  
• Keep container tightly closed.  
• Ground/bond container and receiving equipment.  
• Use explosion-proof electrical, ventilating, lighting, manufacturing and packaging equipment.  
• Use only non-sparking tools.  
• Take precautionary measures against static discharge.  
• Wear plastic or rubber gloves. Eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield). |
| ![Eye Irritation - Category 2A](image) | Eye Irritation – Category 2A | Causes serious eye irritation | • Wash hands and face thoroughly after handling.  
• Wear eye protection/face protection; eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield). |
Product Name: Aqueous Cosmetic Liquids – Creams, Gels, and Lotions Containing < 24% Alcohol

GENERAL PRECAUTIONARY STATEMENTS: Keep out of reach of children. Read label before use.

HAZARDS NOT OTHERWISE CLASSIFIED: Over-exposure may cause skin dryness or slight irritation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below.

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>2 – 23.5</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>541-02-6</td>
<td>&lt;1 -- 23</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. If eye irritation persists: Get medical advice/attention if irritation or other symptoms occur.

IF ON SKIN OR HAIR: Rinse with plenty of water. If skin irritation occurs: Get medical attention. Remove all contaminated clothing and launder it before reuse.

IF INHALED: Remove victim to fresh air and keep in a rest position comfortable for breathing. Call a Poison Control Center if you feel unwell.

IF SWALLOWED: Do not induce vomiting. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if over-exposed. Drowsiness or dizziness if over-exposed by inhalation.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

SUITABLE EXTINGUISHING MEDIA: In case of fire use carbon dioxide, dry chemical and/or foam for extinction. Water spray may be used to soak other materials surrounding the product, to prevent the spread of the fire. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Review the tools available at your location to ensure proper availability of equipment.
Notes for those trained to participate in an emergency:

SPECIFIC FIRE AND EXPLOSION HAZARDS: Observe all appropriate precautions for handling flammable materials.


HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions: Consult trained response personnel for clean-up of large spills or locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources can not be controlled. Sections 2, 5, 7 and 8 of this document should be consulted upon use of this material, to become knowledgeable of the material’s hazards and how to control risks associated with handling flammable liquids.

If the location is not hazardous and only a small amount of material is spilled, control the spill using absorbent pads and protective equipment as noted below. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill. Respiratory protection may include the use of organic vapor cartridges. Protective goggles or face shield is recommended for the control of liquid. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up. Prohibit discharge to drains, soil, surface and ground waters. Non-sparking tools should be utilized in all clean-up associated with flammable liquids. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Employees should wear appropriate protective equipment in the manufacturing environment. Refer to Section 8 for protective equipment selection. Do not eat, drink or smoke while working with this material. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled ignition sources. Do not to handle in close proximity to incompatible materials. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

Maintain a clean work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: Oxidizers, acids, bases.

Conditions for Safe Storage: Store in a tightly capped container away from sunlight, heat, sparks, and flame. Keep in a cool and well-ventilated area. Minimize inventory. It is suggested that this material be “locked up” or stored in an area where production inventory may be controlled by authorized personnel. Use only non-sparking tools. Take precautionary measures against static discharge. Appropriate fire suppression and detection equipment should be utilized. Store on spill pallets or other locations where spill containment will be easily accessible.

Keep away from open drains and protect from releases to the environment.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in
the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded
during the work day. These references do not coincide with product use. These references are meant to be in association
with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>mg/m³</th>
<th>STEL/CEILING ppm</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol (64-17-5)</td>
<td>OSHA PEL</td>
<td>1000</td>
<td>1900</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV</td>
<td>--</td>
<td>--</td>
<td>1000</td>
<td>1880</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>1000</td>
<td>1900</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Cyclopentasiloxane (541-02-6)</td>
<td>OSHA PEL</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>DOW CORNING</td>
<td>10</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the
manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of
flammable materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the
occupational exposure guidelines noted above.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the

PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE)
should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See
also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling of large quantities of liquid
material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in
product manufacturing, plastic or rubber gloves should be considered for use. Tyvek clothing may also be suitable for
handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of
product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and
safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colored or clear slightly viscous liquid

ODOR: Mild, pleasant fragrance

ODOR THRESHOLD: Not Available

pH: Not Available

MELTING/FREEZING POINT: F: N/A C: N/A

BOILING POINT: F: 173 (as ethanol) C: 78.3 (as ethanol)

FLASH POINT: F: 80 – 140 C: 26 – 60 METHOD USED: Closed cup

EVAPORATION RATE: > 1 (Butyl acetate = 1)

FLAMMABILITY: Not Applicable to Liquids

FLAMMABLE LIMITS IN AIR: ETHANOL: 19% UEL; 3.3% LEL

VAPOR PRESSURE (mmHg): @ 70F: 44 (as ethanol) @ 21 C: 44 (as ethanol)

VAPOR DENSITY (AIR = 1): @ 70F: >1 @ 21 C: > 1

RELATIVE DENSITY (H2O = 1): Not Available

SOLUBILITY IN WATER: Soluble in cold water

PARTITION COEFFICIENT: Not Available

AUTOIGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Free-flowing liquid

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Material is not considered reactive under typical handling and storage conditions.

STABILITY: Product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizers, acids, and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.
SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE HEALTH EFFECTS:

SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected

INGESTION: Harmful if swallowed
INHALATION: May cause drowsiness/dizziness

ROUTES OF EXPOSURE: Inhalation, eyes, skin, ingestion

SYMPTOMS: Symptoms may include unsteady gait, nausea, and dizziness. Skin redness, dryness or itchiness may occur with overexposure to the product. Watering, stinging or itching eyes may occur with direct contact.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>Route</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>Oral LD₅₀</td>
<td>Rat</td>
<td>&gt; 6,200 mg/kg</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>Dermal LD₅₀</td>
<td>Rabbit</td>
<td>&gt; 20,000 mg/kg</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>LC₅₀ (4 hr)</td>
<td>Rat</td>
<td>&gt; 8000 mg/L</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>Oral LD₅₀</td>
<td>Rat</td>
<td>&gt;5000 mg/kg bw</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>Dermal LD₅₀</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg bw</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>LC₅₀ (4 hr)</td>
<td>Rat</td>
<td>8.67 mg/L</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation:
Ethyl Alcohol: Irritating to skin (Rabbit)
Cyclopentasiloxane: Not Irritating

Serious Eye Damage/Irritation:
Ethyl Alcohol: Highly Irritating (Draize test; Rabbit)
Cyclopentasiloxane: Not Irritating

Respiratory Irritation:
Ethyl Alcohol: 27,314 ppm (mouse) Highly Irritating
Cyclopentasiloxane: Not irritating

Skin Sensitization:
Ethyl Alcohol: Not sensitizing
Cyclopentasiloxane: Not irritating

CHRONIC HEALTH HAZARDS:

REPEATED DOSE TOXICITY:
NOAEL (Ethanol, oral): >2% (2400 mg/kg); Rat
LOAEL (Ethanol, oral): 3% (3600 mg/kg); Rat
NOAEL (Cyclopentasiloxane, oral): 100 mg/kg male rats
LOAEL (Cyclopentasiloxane, oral): 100 mg/kg bw/day female rats
NOAEL (Cyclopentasiloxane, inhalation): 0.081 mg/L (5ppm) male/female Wistar rats (whole-body inhalation)
LOAEL (Cyclopentasiloxane, inhalation): 160 ppm female rats (nose-only inhalation)
NOAEL (Cyclopentasiloxane, dermal): 1600 mg/kg bw male/female Sprague-Dawley rats
CARCINOGENICITY:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>NTP</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>--</td>
<td>TLV-A3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Notes:
ACGIH TLV-A3 - This reference indicates that the material is “Confirmed Animal Carcinogen with Unknown Relevance to Humans”.

MUTAGENICITY:
Ethanol: Ethanol has been classified as mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May affect genetic material (mutagenic).

Cyclopentasiloxane: Cyclopentasiloxane has provided negative results in a variety of in vitro and in vivo tests.

REPRODUCTIVE TOXICITY:
Ethanol: Effects on the female reproductive system can include menstrual problems, altered sexual behavior, infertility, altered puberty onset, altered length of pregnancy, lactation problems, altered menopause onset and pregnancy outcome. Effects on the male reproductive system can include altered sexual behavior, altered fertility and problems with sperm shape or count.

Cyclopentasiloxane: In a two-generation reproductive toxicity study, reproductive performance was not affected at any concentration.

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Ethanol: Ethanol has been connected to adverse reproductive effects and birth defects (teratogenic), based on moderate to heavy consumption. Human: passes through the placenta, excreted in maternal milk. Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the central nervous system of the fetus, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small size head. Prenatal ethanol exposure affected fetal skeletal ossification at exposure levels lower than those required to affect fetal body weight and length, although the significance of these changes for long-term bone health is unknown.

Cyclopentasiloxane: No developmental toxicity observed (NOAEL: 160 ppm)

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>LC₅₀</td>
<td>12.9 - 15.3g/L</td>
<td>Pimephales promelas</td>
<td>96 h</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>LC₅₀ (OECD 204)</td>
<td>≥16 µg/L</td>
<td>Oncorhynchus mykiss</td>
<td>96 h</td>
</tr>
</tbody>
</table>

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>EC₅₀</td>
<td>5.012 mg/L</td>
<td>Ceriodaphnia Dubia</td>
<td>48 h</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>EC₅₀ (OECD 202)</td>
<td>≥ 2.9 µg/L</td>
<td>Daphnia Magna</td>
<td>48 h</td>
</tr>
</tbody>
</table>

TOXICITY TO AQUATIC PLANTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>EC₅₀</td>
<td>675 mg/L</td>
<td>Chlorella Vulgaris</td>
<td>4 days</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>EC₅₀ (OECD 201)</td>
<td>≥ 12 µg/L</td>
<td>Pseudokirchnerella Subcapita</td>
<td>96 h</td>
</tr>
</tbody>
</table>
TOXICITY TO MICROORGANISMS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>EC50</td>
<td>32.1 g/L</td>
<td>Photobacterium</td>
<td>15 min</td>
</tr>
<tr>
<td>Cyclopentasiloxane</td>
<td>EC50</td>
<td>≥ 2,000 mg/L</td>
<td>Activated Sludge</td>
<td>3 hr</td>
</tr>
</tbody>
</table>

PERSISTENCY AND DEGRADABILITY:

**Ethyl Alcohol:** Degradation of ethanol in water exceeded 60% within 10 days and thus is classified as readily biodegradable.

**Cyclopentasiloxane:** Experimental and modeled biodegradation data indicate that cyclopentasiloxane is not readily biodegradable in an aqueous environment.

BIOACCUMULATIVE POTENTIAL:

**Ethanol:** Ethanol is not likely to bioaccumulate in aquatic organisms. Ethanol released into the environment is primarily distributed into air and water.

**Cyclopentasiloxane:** Cyclopentasiloxane has the potential to bioaccumulate. A study conducted according to an appropriate test protocol, and in compliance with GLP showed a steady-state BCF for fathead minnows of 7,060 mg/L.

SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** According to 40 CFR Section 261.21(a)(1), the characteristic of ignitability will not apply to an aqueous solution that contains less than 24 percent alcohol and which has a flash point less than 60 degrees Celsius. Products associated with this documentation have been previously assessed to ensure applicability of this rule. Follow all local governmental requirements intended for disposal.

**RCRA HAZARD CLASS:** EXEMPT (see above)

SECTION 14: TRANSPORT INFORMATION

**North American Ground Transportation**

In accordance with US Department of Transportation 49 CFR 173.150(e), products associated with this document have been determined to contain at least 50% water and <24% alcohol by volume, therefore these materials are exempt from the US DOT Hazardous Materials Shipping Regulations.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING:** EXEMPT

**Transport Via Water**

Products associated with this data sheet have been previously determined to be in accordance with the International Maritime Dangerous Goods Code Special Provision 144. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IMDG Code.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING:** EXEMPT
Transport Via Air (International)
Products associated with this data sheet have been previously determined to be in accordance with the International Air Transport Association Dangerous Goods Regulations Special Provision A58. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IATA DGR.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING:** EXEMPT

Please be aware of carrier transport variations before shipping hazardous materials.

SECTION 15: REGULATORY INFORMATION

**National Fire Protection Association Codes:** Health: 2 Fire: 3 Reactivity: 0 Other: None

**Workplace Hazardous Materials Identification System:** Class B Flammable Material; Class D; Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

**PREPARATION INFORMATION:** This document replaces the version dated August 5, 2009 and all previous versions of safety data sheets related to this product.

**Author:** Chandra L. Jennings
### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>L’Oreal USA Products, Inc.</th>
<th>Emergency Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>111 Terminal Avenue</td>
<td>800-535-5053 (International: 352-323-3500)</td>
</tr>
<tr>
<td>Clark, NJ 07066</td>
<td>For further information:</td>
</tr>
<tr>
<td></td>
<td>732-499-2741</td>
</tr>
</tbody>
</table>

**Product Name:** Aqueous non-aerosol sprays and serums containing <24% alcohol

**Recommendations on use:** Personal care product used in the hair or on the skin.

**Restrictions on use:** Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Liquid dispensed from the container may be considered flammable until dry.

### SECTION 2: HAZARDS IDENTIFICATION

**Signal Word:** WARNING

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Classification</th>
<th>Hazard Statement</th>
<th>Prevention Statements</th>
</tr>
</thead>
</table>
| ![Flammable](image) | Flammable Liquids – Category 3 | Flammable liquid and vapor | • Keep away from heat, sparks, open flames and hot surfaces. Do not use while smoking.  
• Keep container tightly closed.  
• Ground/bond container and receiving equipment.  
• Use explosion-proof electrical, ventilating, lighting, manufacturing and packaging equipment.  
• Use only non-sparking tools.  
• Take precautionary measures against static discharge.  
• Wear plastic or rubber gloves. Eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield). |
| ![Eye Irritation](image) | Eye Irritation – Category 2A | Causes serious eye irritation | • Wash hands and face thoroughly after handling.  
• Wear eye protection/face protection; eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield). |
Product Name: Aqueous non-aerosol sprays and serums containing <24% alcohol

This material is considered hazardous by the US Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200)

General Precautionary Statements: Keep out of reach of children. Read label before use.

Hazard Not Otherwise Classified: Over-exposure may cause skin dryness or slight irritation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>2 – 12</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. If eye irritation persists: Get medical advice/attention if irritation or other symptoms occur.

IF ON SKIN OR HAIR: Rinse with plenty of water. If skin irritation occurs: Get medical attention. Remove all contaminated clothing and launder it before reuse.

IF INHALED: Remove victim to fresh air and keep in a rest position comfortable for breathing. Call a Poison Control Center if you feel unwell.

IF SWALLOWED: Do not induce vomiting. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if over-exposed. Drowsiness or dizziness if over-exposed by inhalation.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

SUITABLE EXTINGUISHING MEDIA: In case of fire use carbon dioxide, dry chemical and/or foam for extinction. Water spray may be used to soak other materials surrounding the product, to prevent the spread of the fire. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Review the tools available at your location to ensure proper availability of equipment.
Notes for those trained to participate in an emergency:


PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Observe all appropriate precautions for handling flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions:

Consult trained response personnel for clean-up of large spills or locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources can not be controlled. It is vital that Sections 2, 5, 7 and 8 of this document should be consulted upon use of this material, to become knowledgeable of the material’s hazards and how to control risks associated with handling flammable liquids.

If the location is not hazardous and only a small amount of material is spilled, control the spill using absorbent pads and protective equipment as noted below. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill. Respiratory protection may include the use of organic vapor cartridges. Protective goggles or face shield is recommended for the control of liquid. Refer to Section 8 for additional information.

Notes for those trained to participate in an emergency:

Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up. Prohibit discharge to drains, soil, surface and ground waters.

Recommendations for personal protective equipment selection are noted above. Non-sparking tools should be utilized in all clean-up associated with flammable liquids. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

General notes on handling:

Employees should not eat, drink or smoke while working with flammable materials. Employees should be advised to wear appropriate protective equipment in the manufacturing environment. See section 8 of this document for protective equipment selection. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled ignition sources. Employees should be advised not to handle flammable products in close proximity to incompatible materials. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

Storage precautions for unpackaged product (manufacturing environment): Store in a well-ventilated place. Keep cool. Minimize inventory. Keep container tightly closed. It is suggested that this material be “locked up” or stored in an area where production inventory may be controlled by authorized personnel. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Appropriate fire
suppression and detection equipment should be utilized. Store on spill pallets or other locations where spill containment will be easily accessible.

Keep away from open drains and access to the environment.

General notes on storage:

**Incompatible materials:** Oxidizers, acids, bases. Store away from incompatible materials.

Maintain a clean work environment which includes use of properly functioning containers, proper housekeeping practices.

Storage precautions for packaged product – see consumer packaging.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**CONTROL PARAMETERS:** These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

### OCCUPATIONAL EXPOSURE VALUES:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>STEL/CEILING ppm</th>
<th>TWA mg/m³</th>
<th>STEL/CEILING mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol (64-17-5)</td>
<td>OSHA PEL</td>
<td>1000</td>
<td>--</td>
<td>1900</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV</td>
<td>--</td>
<td>--</td>
<td>1000</td>
<td>1880</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>1000</td>
<td>--</td>
<td>1900</td>
<td>--</td>
</tr>
</tbody>
</table>

**WORK HYGIENIC PRACTICES:** Ensure all work surfaces are maintained, to prevent contamination.

**ENGINEERING CONTROLS:** None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

**PERSONAL PROTECTIVE EQUIPMENT:** Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

**Eye/Face Protection (Non-Emergency):** None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended.

**Skin Protection (Non-Emergency):** None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

**Respiratory Protection (Non-Emergency):** Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Colored or clear, water-thin liquid

ODOR: Mild, pleasant fragrance

ODOR THRESHOLD: Not Available

pH: 4.0-9.0

MELTING/FREEZING POINT: F: N/A C: N/A

BOILING POINT: F: 173 (as ethanol) C: 78.3 (as ethanol)

FLASH POINT: F: 74 – 140 C: 23 – 60 C METHOD USED: Closed cup

EVAPORATION RATE: > 1 (Butyl acetate = 1)

FLAMMABILITY: Not Applicable to Liquids

FLAMMABLE LIMITS IN AIR: ETHANOL: 19% UEL; 3.3% LEL

VAPOR PRESSURE (mmHg): @ 70F: 44 (as ethanol) @ 21 C: 44 (as ethanol)

VAPOR DENSITY (AIR = 1): @ 70F: >1 @ 21 C: > 1

RELATIVE DENSITY (H2O = 1): Not Available

SOLUBILITY IN WATER: Soluble in cold water

PARTITION COEFFICIENT: Not Available

AUTOIGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOITY: Free-flowing liquid

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Material is not considered reactive under typical handling and storage conditions.

STABILITY: Product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizers, acids, and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.
SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: Harmful if swallowed
INHALATION: May cause drowsiness/dizziness

ROUTES OF EXPOSURE: Inhalation, eyes, skin, ingestion
SYMPTOMS: Symptoms may include unsteady gait, nausea, and dizziness. Skin redness, dryness or itchiness may occur with overexposure to the product. Watering, stinging or itching eyes may occur with direct contact.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>Route</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>Oral LD_{50}</td>
<td>Rat</td>
<td>&gt; 16,200 mg/kg</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>Dermal LD_{50}</td>
<td>Rabbit</td>
<td>&gt; 20,000 mg/kg</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>LC_{50} (4 hr)</td>
<td>Rat</td>
<td>&gt; 8000 mg/L</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation:
*Ethyl Alcohol*: Irritating to skin (Rabbit)

Serious Eye Damage/Irritation:
*Ethyl Alcohol*: Highly Irritating (Draize test; Rabbit)

Respiratory Irritation:
*Ethyl Alcohol*: 27,314 ppm (mouse) Highly Irritating

Skin Sensitization:
*Ethyl Alcohol*: Not sensitizing

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Ethanol, oral): >2% (2400 mg/kg); Rat
LOAEL (Ethanol, oral): 3% (3600 mg/kg); Rat

CARCINOGENICITY:

<table>
<thead>
<tr>
<th>Component Name (CAS-No.)</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>NTP</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>--</td>
<td>TLV-A3</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Notes:
*ACGIH TLV-A3* - This reference indicates that the material is “Confirmed Animal Carcinogen with Unknown Relevance to Humans”.

MUTAGENICITY:
Ethanol: Ethanol has been classified as mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May affect genetic material (mutagenic).
Product Name: Aqueous non-aerosol sprays and serums containing <24% alcohol

REPRODUCTIVE TOXICITY:
Ethanol: Effects on the female reproductive system can include menstrual problems, altered sexual behavior, infertility, altered puberty onset, altered length of pregnancy, lactation problems, altered menopause onset and pregnancy outcome. Effects on the male reproductive system can include altered sexual behavior, altered fertility and problems with sperm shape or count.

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Ethanol: Ethanol has been connected to adverse reproductive effects and birth defects (teratogenic), based on moderate to heavy consumption. Human: passes through the placenta, excreted in maternal milk. Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the central nervous system of the fetus, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small size head. Prenatal ethanol exposure affected fetal skeletal ossification at exposure levels lower than those required to affect fetal body weight and length, although the significance of these changes for long-term bone health is unknown.

SECTION 12: ECOLOGICAL INFORMATION
Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>LC₅₀</td>
<td>12.9 - 15.3g/L</td>
<td>Pimephales promelas</td>
<td>96 h</td>
</tr>
</tbody>
</table>

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>EC₅₀</td>
<td>5,012 mg/L</td>
<td>Ceriodaphnia Dubia</td>
<td>48 h</td>
</tr>
</tbody>
</table>

TOXICITY TO AQUATIC PLANTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>EC₅₀</td>
<td>675 mg/L</td>
<td>Chlorella Vulgaris</td>
<td>4 days</td>
</tr>
</tbody>
</table>

TOXICITY TO MICROORGANISMS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>EC₅₀</td>
<td>32.1 g/L</td>
<td>Photobacterium Phoshoreum</td>
<td>15 min</td>
</tr>
</tbody>
</table>

PERSISTENCY AND DEGRADABILITY:

Ethyl Alcohol: Degradation of ethanol in water exceeded 60% within 10 days and thus is classified as readily biodegradable

BIOACCUMULATIVE POTENTIAL:

Ethanol: Ethanol is not likely to bioaccumulate in aquatic organisms. Ethanol released into the environment is primarily distributed into air and water.
SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to Section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL METHOD: According to 40 CFR Section 261.21(a)(1), the characteristic of ignitability will not apply to an aqueous solution that contains less than 24 percent alcohol and which has a flash point less than 60 degrees Celsius. Products associated with this documentation have been previously assessed to ensure applicability of this rule. Follow all local governmental requirements intended for disposal.

RCRA HAZARD CLASS: EXEMPT (see above)

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation
In accordance with US Department of Transportation 49 CFR 173.150(e), products associated with this document have been determined to contain at least 50% water and <24% alcohol by volume, therefore these materials are exempt from the US DOT Hazardous Materials Shipping Regulations.

- IN CONSUMER PACKAGING: EXEMPT
- OTHER THAN CONSUMER PACKAGING: EXEMPT

Transport Via Water
Products associated with this data sheet have been previously determined to be in accordance with the International Maritime Dangerous Goods Code Special Provision 144. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IMDG Code.

- IN CONSUMER PACKAGING: EXEMPT
- OTHER THAN CONSUMER PACKAGING: EXEMPT

Transport Via Air (International)
Products associated with this data sheet have been previously determined to be in accordance with the International Air Transport Association Dangerous Goods Regulations Special Provision A58. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IATA DGR.

- IN CONSUMER PACKAGING: EXEMPT
- OTHER THAN CONSUMER PACKAGING: EXEMPT

Please be aware of carrier transport variations before shipping hazardous materials.
SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 3 Reactivity: 0 Other: None

Workplace Hazardous Materials Identification System: Class B Flammable Material; Class D; Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated August 5, 2009 and all previous versions of safety data sheets related to this product.

Author: Chandra L. Jennings
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L’Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Self-heating Hair Bleach Paste/Fully Regulated for Hazmat Transport

Recommendations on use: For lightening of hair color.

Restrictions on use: Do not use metal utensils with this product. For external use only. Use only as directed. Refer to product insert or container for additional use warnings.

SECTION 2: HAZARDS IDENTIFICATION

Physical Hazard Signal Word: Danger

Health Hazard Signal Word: Warning

Hazard statements: Self-Heating; may catch fire. Causes eye irritation. May cause an allergic skin reaction.

Regulatory Classification: OSHA Reactive substance, Eye irritant, Possible skin sensitizer; DOT 4.2 Spontaneously Combustible Solid; WHMIS Class B Division 6 Flammable Reactive Material (solid)

Precautionary statements:

General statements: Keep out of reach of children. Read label before use.

Prevention Statements for Self-heating Substances: Keep cool. Protect from sunlight. Wear protective plastic gloves, such as nitrile, for all product handling. Safety glasses, goggles or faceshield should be worn for protection during the manufacture of this product. Selection of face/eye protection should be coordinated with manufacturing activities. This product is a self-heating solid which can lead to spontaneous combustion. Keep from heat and moisture. Do not use metal utensils.

Prevention statements for eye irritants (hazard category 2B) and skin sensitization: Wash hands thoroughly after handling. Do not eat, drink or smoke while using this product. Avoid breathing paste material. Contaminated work clothing should not be allowed out of the workplace. Wear protective plastic gloves, such as nitrile, during open handling.

Other hazards which will not result in classification: May have irritating properties to respiratory system. May have the potential to cause respiratory sensitization. Respiratory sensitization is more common when using powered forms of hair bleach products. This document is written to reference paste products.
SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Persulfate</td>
<td>7727-21-1</td>
<td>≤31</td>
</tr>
<tr>
<td>Ammonium Persulfate</td>
<td>7727-54-0</td>
<td>≤16</td>
</tr>
<tr>
<td>Sodium Silicate</td>
<td>1344-09-8</td>
<td>≤16</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>≤6</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

Response Precautionary Statements:

IF IN EYES: Rinse copiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. If eye irritation persists: Get medical advice/attention if irritation or other symptoms occur.

IF ON SKIN OR HAIR: Remove immediately all contaminated clothing. Rinse skin with water in an appropriate emergency shower. Wash with plenty of soap and water. If irritation or rash occurs: get medical advice/attention.

IF SWALLOWED: Do not induce vomiting. Consult a physician immediately.

IF INHALED: Move to fresh air. If irritation symptoms appear or there is difficulty in breathing, get medical attention immediately.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SYMPTOMS/EFFECTS: May cause eye irritation upon contact, possible respiratory system/skin irritation if over-exposed (manufacturing environment). May have the potential to cause skin/respiratory sensitization resulting in an allergic reaction.

Wash contaminated clothing before re-use.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam and/or water spray. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Please review the tools available at your location to ensure proper availability of equipment.

Notes for those trained to participate in an emergency:

SPECIAL FIRE FIGHTING PROCEDURES: Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Product contains oxidizing materials, but is not an oxidizing material itself. Residual product on towels, sponges or mops may cause fire. Rinse towels thoroughly before disposal. Rinse sponges and mops thoroughly before storage. Persulfate compounds may ignite and undergo decomposition in the presence of moisture and heat. Spray and flood decomposing material with large quantities of water. May cause release of oxygen and oxides of sulfur which support combustion. Decomposition could form a high temperature melt. See section ten of this document (Stability and Reactivity).

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia
SECTION 6: ACCIDENTAL RELEASE MEASURES

Notes for non-emergency personnel:

Consult trained response personnel for clean-up of large spills or locations where providing preliminary control of the chemical release is hazardous. Hazardous locations include areas where ignition sources can not be controlled. It is vital that sections 2, 5, 7 and 8 of this document be consulted before an accident occurs, to control any risks in handling self-heating materials.

If the location is not hazardous and only a small amount of material is spilled, control the spill using absorbent pads or towels and protective equipment as noted below. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with section 13 of this document. Metal utensils should not be utilized in spill clean-up. Care should be taken to isolate the material from moisture during clean-up.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill. Protective goggles or face shield is recommended for the control of paste materials.

Notes for those trained to participate in an emergency:

ACCIDENTAL RELEASE MEASURES: Should a release of material occur, eliminate all sources of ignition. Isolate and contain the material with pads. Clean up the material with dry pads or paper towels. Place spent absorbent in UN specification drums for disposal. All precautions associated with controlling a self-heating substance should be employed during clean-up. Prohibit discharge to drains, soil, surface and ground waters. During clean-up, do not contaminate product with organic material. Keep drummed waste cool and dry pending disposal.

Recommendations for personal protective equipment selection are noted above. Non-sparking tools should be utilized in all clean-up. Metal utensils should not be utilized for spill clean up. Dispose in accordance with section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Storage precautionary statements for self-reactive materials: Maintain air gap between stacks and pallets of stored material. These materials should be stored at temperatures less than 100 F. Store away from fuels, solvents, organic materials and reducing agents. Keep segregated and store away from other materials. Avoid heat and moisture. Use only with adequate ventilation and avoid inhalation.

Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area.

Keep away from open drains and access to the environment. Refer to product insert or container for additional use warnings.

General notes on storage:

Incompatible materials: Fuels, solvents, organic materials and reducing agents. Keep material segregated.

General notes on handling:

Employees should not eat, drink or smoke while working with hazardous materials. Employees should be advised to wear appropriate protective equipment in the manufacturing environment. See section 8 of this document for protective equipment selection. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled heat sources. Employees should be advised not to handle self-heating products in close proximity to incompatible materials.

Maintain a clean work environment which includes the use of properly functioning containers, proper housekeeping practices.

Please refer to section 8 of this document for recommended equipment to be used in a manufacturing environment.

OTHER PRECAUTIONS: Do not allow stored material to come into contact with moisture (keep lids properly affixed on product stored in plastic tubs). Do not store metal utensils inside containers of product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product — Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Particulate filtering cartridges may be utilized with air-purifying respiratory protection. Ammonia cartridges may also be useful.

EYE PROTECTION: None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

SKIN PROTECTION: Plastic or rubber gloves should be worn during product application and preparation. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should also be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron may be used for product handling. Tyvek clothing may also be suitable for handling large quantities of material.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are clean. Metal instruments should not be used with this product or stored inside product containers.

Occupational Exposure Values:

OSHA PEL-TWA: None Established
ACGIH TLV-TWA: Potassium Persulfate/Ammonium Persulfate (as S₂O₈): 0.1 mg/m³
OSHA PEL/ACGIH TLV STEL: None Established
OSHA PEL/ACGIH TLV CEILING: None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Thick, grainy paste. May be white or colored.

ODOR: Could have a possible ammonia odor or enhanced fragrance.

ODOR THRESHOLD: Not established.

pH: Not applicable

FREEZING POINT: F: N/A  C: N/A

MELTING POINT: Decomposes

BOILING POINT: F: N/A  C: N/A

FLASH POINT: F: N/A  C: N/A  METHOD USED: N/A

EVAPORATION RATE: N/A

FLAMMABILITY: SOLID MATERIAL. NON-FLAMMABLE. SELF-HEATING.

FLAMMABLE LIMITS IN AIR (% BY VOLUME): UPPER: N/A  LOWER: N/A
VAPOR PRESSURE (mmHg): @ F: N/A C: N/A
VAPOR DENSITY (AIR = 1): @ F: N/A C: N/A
RELATIVE DENSITY/SPECIFIC GRAVITY (H2O = 1): >1
SOLUBILITY IN WATER: Approx 80% water soluble
PARTITION COEFFICIENT: n-octanol/water: Not available
AUTOIGNITION TEMPERATURE: F: N/A C: N/A
DECOMPOSITION TEMPERATURE: Not available
VISCOSITY: Thick solid. Measurement not available.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: This material may react to heat, metal and moisture.

STABILITY: Material is stable at room temperature and under dry conditions. Heat and/or moisture may cause instability.

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with heat, metal and moisture are possible for both the finished product and manufactured, unpackaged product. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat, moisture, contamination with organic materials and metal utensils.

INCOMPATIBILITY (MATERIAL TO AVOID): Organic compounds (including flammable and combustible materials) and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Irritation, possible allergic dermatitis
SERIOUS EYE DAMAGE OR IRRITATION: Irritation may be associated with this product, if direct contact occurs
RESPIRATORY OR SKIN SENSITIZATION: Respiratory sensitization has been associated with loosely powdered forms of hair bleach – this product is a thick paste.
INGESTION: Harmful if swallowed, slightly toxic
INHALATION: Irritation and possible sensitization (more common with powdered formulations)

CARCINOGENICITY:
OSHA: Not recognized as carcinogenic ACGIH: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE: Inhalation, eyes, skin

CHRONIC HEALTH HAZARDS: Possible allergic dermatitis. Possible respiratory sensitization which is more common with the use of powdered hair bleaches.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.
SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment.

The product itself has not been tested as a whole, but the following results have been associated with some of its constituents:

ACUTE AND PROLONGED TOXICITY TO FISH

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Persulfate</td>
<td>LC₅₀ (OECD TG 203)</td>
<td>323 mg/l</td>
<td>Poecilia reticulata</td>
<td>96 h</td>
</tr>
<tr>
<td>Potassium Persulfate</td>
<td>LC₅₀ (FMC Study I92-1250)</td>
<td>771 mg/l</td>
<td>Bluegill Sunfish</td>
<td>96 h</td>
</tr>
</tbody>
</table>

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>SPECIES</th>
<th>EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Persulfate</td>
<td>EC₅₀ (OECD Guideline 202)</td>
<td>357 mg/l</td>
<td>Daphnia Magna</td>
<td>48 h</td>
</tr>
<tr>
<td>Potassium Persulfate</td>
<td>EC₅₀ (FMC Study I92-1251)</td>
<td>133 mg/l</td>
<td>Daphnia Magna</td>
<td>48 h</td>
</tr>
</tbody>
</table>

CHEMICAL FATE: Biodegradability does not apply to inorganic substances.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Hair bleaching products are ignitable RCRA hazardous wastes when intended for disposal. Physical and/or chemical deactivation/degradation is the required method of treatment and disposal. Commonly, incineration is utilized as a management method.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.
SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- In Consumer Packaging:
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

- Other Than Consumer Packaging:
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

Transport Via Water

- In Consumer Packaging:
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

- Other Than Consumer Packaging:
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)
Transport Via Air

- In Consumer Packaging:
  - ID NUMBER: UN 3088
  - PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  - TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  - HAZARD CLASS: 4.2
  - PACKING GROUP: II
  - LABEL STATEMENTS: Spontaneously Combustible

- OTHER THAN CONSUMER PACKAGING (>450L):
  - ID NUMBER: UN 3088
  - PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  - TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  - HAZARD CLASS: 4.2
  - PACKING GROUP: II
  - LABEL STATEMENTS: Spontaneously Combustible

Please be aware of carrier transport variations before shipping hazardous materials

LABELS FOR THIS PRODUCT

Label for fully regulated materials, Division 4.2:

![Label](image)

SECTION 15: REGULATORY INFORMATION

- National Fire Protection Association Codes: Health: 2 Fire: 0 Reactivity: 1 Other:
- Workplace Hazardous Materials Identification System: Class B Division 6 Flammable Reactive Material (solid)
- Occupational Safety and Health Administration: Reactive, Irritant, Possible Sensitizer
- US DOT/ICAO/IMDG: See section 14 above

SECTION 16: OTHER INFORMATION

- PREPARATION INFORMATION: This document represents an initial publication of this information.
- Preparer name: Chandra L. Jennings
Material Safety Data Sheet

Products associated with this document are exempt from OSHA’s Hazard Communication Standard 29 CFR 1910.1200, due to low presence or no presence of hazardous materials. Standard must be consulted for specific requirements and reporting thresholds.

IDENTITY
L’Oreal Non-Hazardous hair styling, cosmetic and/or skin care products

Section I
Manufacturer’s Name
L’Oreal USA Products, Inc.
Address (Number, Street, City, State, and ZIP Code)
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
(800) 535-5053 (Int’l 352-323-3500)

Telephone Number For Information
(732) 499-2745

Date Prepared
May 10, 2005

Signature of Preparer (optional)
CLJ/GCD

Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components (Specific Chemical Identity:Common Name(s))</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits Recommended</th>
<th>% (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (Liquids)</td>
<td>varies</td>
</tr>
<tr>
<td>Melting Point (Solids)</td>
<td>varies</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Solubility in Water
Generally soluble or miscible

Appearance and Odor
May have a mild to moderate fragrance

Section IV - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Method Used)</td>
<td>&gt;200°F</td>
</tr>
</tbody>
</table>

Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray may be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of combustible materials. For manufacturing, minimize airborne vapor levels through engineering controls.
**Section V - Reactivity Data**

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
<th>Non-Haz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>Avoid heat, fire, and other sources of ignition.</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Incompatibility (Materials to Avoid)**

Oxidizing agents and nitric acid.

**Hazardous Decomposition or Byproducts**

Silicon dioxide, carbon monoxide, carbon dioxide.

**Section VI - Health Hazard Data**

<table>
<thead>
<tr>
<th>Route(s) of Entry:</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Health Hazards (Acute and Chronic)**

No health hazards anticipated.

**Carcinogenicity:**

NTP? IARC Monographs? OSHA Regulated?

|              | No         | No      | No         |

**Signs and Symptoms of Exposure**

No health hazards anticipated.

**Medical Conditions Generally Aggravated by Exposure**

None known.

**Emergency and First Aid Procedure**

If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. If swallowed, drink one or two glasses of water or milk and consult a physician. If on skin, wash with soap and water.

**Section VII - Precautions for Safe Handling and Use**

**Steps to be Taken in Case Material is Released or Spilled**

Eliminate all sources of ignition. Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other absorbants. Containerize spent absorbants in suitable containers for disposal. Wash spill area with detergent solution as necessary.

**Waste Disposal Method**

Non-hazardous products are not regulated as hazardous wastes when intended for disposal. However, incineration is the recommended method of treatment and disposal for such products.

**Precautions to be Taken in Handling and Storage**

Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

**Other Precautions**

For external use only. Use only as directed.

**Section VIII - Control Measures**

For routine manufacturing/filling operations, none generally required. For spills, wear an approved self-contained breathing apparatus.

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Explosion-Proof</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical(General)</th>
<th>Explosion-Proof</th>
<th>Other</th>
</tr>
</thead>
</table>
Protective Gloves
Rubber or plastic gloves for bulk quantities.

Other Protective Clothing or Equipment
Safety glasses and protective clothing for bulk quantities.

Work/Hygienic Practices
OSHA hazard classification: Non-Hazardous
DOT classification: Bulk - Not regulated
Finished Product - Not regulated.