Material Safety Data Sheet
TRI-STAR L-2000

Section 1. Chemical product and company identification

<table>
<thead>
<tr>
<th>Trade name</th>
<th>TRI-STAR L-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product use</td>
<td>Laundry detergent</td>
</tr>
<tr>
<td>Supplier</td>
<td>Ecolab Inc. Institutional Division</td>
</tr>
<tr>
<td></td>
<td>370 N. Wabasha Street</td>
</tr>
<tr>
<td></td>
<td>St. Paul, MN 55102</td>
</tr>
<tr>
<td></td>
<td>1-800-352-5326</td>
</tr>
<tr>
<td>Code</td>
<td>952010</td>
</tr>
<tr>
<td>Date of issue</td>
<td>26-July-2005</td>
</tr>
</tbody>
</table>

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
Outside United States and Canada CALL 1-651-222-5352 (in USA)

Section 2. Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>% by weight</th>
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<tbody>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>30</td>
</tr>
<tr>
<td>poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-2-propenoic acid, homopolymer, sodium salt</td>
<td>9016-45-9</td>
<td>5 - 20</td>
</tr>
<tr>
<td>1,2,4-butanetricarboxylic acid, 2-phosphono-, sodium salt</td>
<td>9003-04-7</td>
<td>5 - 20</td>
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<tr>
<td>1,2,4-butanetricarboxylic acid, 2-phosphono-, sodium salt</td>
<td>40372-66-5</td>
<td>1 - 5</td>
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</tbody>
</table>

Section 3. Hazards identification

**Physical state**: Liquid. (Emulsion liquid.)

**Emergency overview**: DANGER!

CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
HARMFUL IF SWALLOWED.
Do not ingest. Do not get in eyes, on skin or clothing. Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**Potential acute health effects**

- **Eyes**: Corrosive to eyes.
- **Skin**: Corrosive to the skin.
- **Inhalation**: Corrosive to the respiratory system.
- **Ingestion**: Harmful if swallowed. Causes burns to mouth, throat and stomach.

See toxicological Information (section 11)

Section 4. First aid measures

**Eye contact**: In case of contact, immediately flush eyes with cool running water. Remove contact lenses and continue flushing with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin contact**: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Inhalation**: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion**: Rinse mouth; then drink one or two large glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Section 5. Fire fighting measures

Flash point: > 100°C
Product does not support combustion.

Fire fighting media and instructions: Use an extinguishing agent suitable for surrounding fires.
Dike area of fire to prevent product run-off.
No specific hazard.

Special protective equipment for fire-fighters: Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions: Ventilate area of leak or spill. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8). Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up: If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Section 7. Handling and storage

Handling: Do not ingest. Do not get in eyes, on skin or on clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.

Storage: Keep out of the reach of children. Keep container tightly closed. Keep container in a cool, well-ventilated area.
Store between 40 and 0°C

Section 8. Exposure Controls, Personal Protection

Engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the work-station location.

Personal protection
Eyes: Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.

Hands: Use chemical resistant, impervious gloves.

Skin: Use synthetic apron, other protective equipment as necessary to prevent skin contact.

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Name: sodium hydroxide

Exposure limits
ACGIH TLV (United States, 1/2004).
CEIL: 2 mg/m³ Form: All forms
OSHA PEL (United States, 8/1997).
TWA: 2 mg/m³ 8 hour(s). Form: All forms

Section 9. Physical and chemical properties

Physical state: Liquid. (Emulsion liquid.)
Color: Blue.
Odor: Odorless.

pH: 13.5 (100%)
Boiling/condensation point: >100 °C
Specific gravity: 1.425 (Water = 1)
Viscosity: Dynamic: 800 cP
Dispersion properties: Easily dispersed in cold water, hot water.
Solubility: Easily soluble in cold water, hot water.

Section 10. Stability and reactivity

Stability: The product is stable.
Reactivity: Highly reactive with acids.
Reactive with metals.
Slightly reactive with reactive with organic materials.

Section 11. Toxicological information

Potential acute health effects

- Eyes: Corrosive to eyes.
- Skin: Corrosive to the skin.
- Inhalation: Corrosive to the respiratory system.
- Ingestion: Harmful if swallowed. Causes burns to mouth, throat and stomach.
- Chronic effects on humans: Contains material which causes damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea.

Section 12. Ecological information

Products of degradation: These products are carbon oxides (CO, CO₂) and water, phosphates. Some metallic oxides.

Section 13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Waste classification: Unused product is D002 (Corrosive)
Consult your local or regional authorities.

Section 14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Class</th>
<th>Packing group</th>
<th>Additional information</th>
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<tbody>
<tr>
<td>DOT Classification</td>
<td>UN1824</td>
<td>Sodium hydroxide solution</td>
<td>8</td>
<td>II</td>
<td>Limited quantity Yes.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Special provisions B2, IB2, N34, T7, TP2</td>
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</table>

APPLIES ONLY DURING ROAD TRANSPORT
Any variation of the shipping description based on the packaging is not addressed.

Section 15. Regulatory information

HCS Classification: Corrosive material
Target organ effects

U.S. Federal regulations: SARA 302/304/311/312 extremely hazardous substances: None.
SARA 302/304 emergency planning and notification: None.

TSCA 8(b) inventory: All materials are listed or exempt.
California prop. 65: No products were found.
Section 16. Other information

Hazardous Material : Hazardous Material Information System (U.S.A.)

<p>| | |</p>
<table>
<thead>
<tr>
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<tr>
<td>Health</td>
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<td>Fire hazard</td>
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<td>Reactivity</td>
<td>1</td>
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<tr>
<td>Personal protection</td>
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</table>

Date of issue : 26-July-2005.
Responsible name : Regulatory Affairs
Date of previous issue : No Previous Validation.

Notice to reader:
The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.