SECTION I - CHEMICAL PRODUCT

Identity:  Liquid Laundry Detergent
Brands:  ACE / ARIEL  (All non 2X Variations for Retail*)

ACE Limpieza Intensa, ACE Free, ACE Brisa Limpia, ACE con Blanqueador Alternativo,
ACE con un Toque de Downy Frescura Primavera, ACE con un Toque de Downy Brisa Limpia,
Ariel, Ariel con Blanqueador Alternativo, Ariel Hydroactivo, Ariel Color.

Emergency Telephone Number: 24hr P&G Operator - 1-888-774-9579 or call Local Poison Control Center

* This MSDS applies to all uses/handling of these products in a retail package for consumer home use.

SECTION II - HAZARDS IDENTIFICATION

Health Hazards (Acute and Chronic):
  Ingestion:  May cause transient gastrointestinal irritation.
  Eye Contact:  May cause mild, transient irritation.
  Inhalation:  Transient irritation with prolonged exposure to concentrated material.

Signs and Symptoms of Exposure:
  Ingestion:  May result in nausea, vomiting, and/or diarrhea.
  Eye Contact:  May cause stinging, tearing, itching, swelling, and/or redness.
  Skin:  Prolonged contact with concentrated material may be drying or transiently irritating to skin.
### SECTION III - COMPOSITION AND INGREDIENTS

**Ingredients/Chemical Name:** Biodegradable surfactants (anionic and nonionic) and enzymes. Biodegradable surfactants (anionic, nonionic, and cationic) and enzymes.

Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS No.</th>
<th>Recommended Limits</th>
<th>Composition Range</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Ethanol</td>
<td>64-17-5</td>
<td>ACGIH TWA: 1880 mg/m³ OSHA PEL &amp; TWA: 1900 mg/m³</td>
<td>0.5 - 5%</td>
<td>7.06 g/kg (oral, rat)</td>
</tr>
<tr>
<td>Sodium borate</td>
<td>Borax</td>
<td>1330-43-4</td>
<td>ACGIH TWA: 5mg/m³</td>
<td>1 – 5%</td>
<td>NA</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>Ethanolamine</td>
<td>141-43-5</td>
<td>ACGIH TWA: 7.5 mg/m³ ACGIH STEL: 15 mg/m³ OSHA PEL: 6 mg/m³ OSHA TWA: 8 mg/m³ OSHA STEL: 15 mg/m³</td>
<td>0.5 – 5%</td>
<td>1.7 g/kg (oral, rat)</td>
</tr>
</tbody>
</table>

### SECTION IV - FIRST AID INFORMATION

**Emergency and First Aid Procedures:**

- **Ingestion:** Drink a glassful of water.
- **Eye Contact:** Flush with water for 10 to 15 minutes.
- **Skin:** If prolonged contact occurs, rinse thoroughly with water. If spilled on clothing, change clothes.
- **If symptoms persist or reoccur, seek medical attention.**

**Other:** Consumer product package has a caution statement: "CAUTION: Eye irritant. Harmful if swallowed. KEEP OUT OF REACH OF CHILDREN. If swallowed, give a glassful of water. Call a physician. In case of eye contact, flush with water."

### SECTION V - FIRE FIGHTING INFORMATION

**Flash Point (Method Used):** —150°F PM CC

**Explosive Limits:**

- **LEL:** N/A
- **UEL:** N/A

**Extinguishing Media:** CO₂, water

**Special Fire Fighting Procedures:** None.

**Unusual Fire Hazards:** None. This product has a flash point above 150°F. It is an aqueous solution containing ethyl alcohol and it does not sustain combustion.

**Stability:**

- **Unstable:** Conditions to Avoid: None
- **Stable:** X

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

**Hazardous Decomposition/By Products:** None known

**Hazardous Polymerization:**

- **May Occur:** Conditions to Avoid: None
- **Will Not Occur:** X
SECTION VI - ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** None

**Environmental Precautions:** DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL REGULATIONS. Small or household quantities may be disposed of in refuse or in sewer. First check with your local water treatment plant. For larger quantities, incineration is preferred. Do not landfill.

**Steps To Be Taken in Case Material is Released or Spilled:** Flush small or household quantities down acceptable sewer (contains biodegradable surfactants). Prevent spills from reaching a waterway. Sorbents may be used.

SECTION VII - HANDLING AND STORAGE

**Precautions To Be Taken in Handling and Storing:** No unusual precautions necessary.

**Other Precautions:** None

SECTION VIII - EXPOSURE CONTROLS, PERSONAL PROTECTION

**Respiratory Protection (Specify Type):** None required with normal use.

**Ventilation**

- **Local Exhaust:** None required with normal consumer use.
- **Special:** None

**Mechanical (General):** Normal/general dilution ventilation is acceptable. **Other:** None

**Eye Protection:** None required with normal consumer use.

**Industrial Setting:** If a splash is likely, chemical goggles may be needed.

**Protective Gloves:** None required with normal use.

**Industrial Setting:** Protective gloves (rubber, neoprene) should be used for prolonged direct contact.

**Other Protective Equipment:** None required with normal use.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point °F:** 205-207°F

**Vapor Pressure (mm Hg):** <29.4

**Vapor Density (Air=1):** Unknown

**Odor Threshold:** N/A

**Coefficient of Water/Oil Distribution:** N/A

**Scooped Density:** N/A

**Appearance and Odor:** ACE Free is straw/yellow color. ACE Limpieza Intensa, ACE Brisa Limpia, ACE con Blanqueador Alternativo, ACE con un Toque de Downy Frescura Primavera, ACE con un Toque de Downy Brisa Limpia, Ariel, Ariel Color, Ariel Hydroactivo, and Ariel con Blanqueador Alternativo are blue in color. All Liquid ACE / Ariel products contain fragrance, except ACE Free.

**Specific Gravity (H₂O=1):** 1.045 to 1.080

**Percent Volatile by Volume (%):** 60.99%-61.66%

**Evaporation Rate (nBuOAc=1):** Unknown

**Freezing Point:** N/A

**pH (10% solution):** 8.1 to 8.6

**Solubility in Water:** Completely soluble.

**Reserve Alkalinity:** N/A
SECTION X - STABILITY AND REACTIVITY

Possible Hazardous Reactions/Conditions:  None known
Conditions to Avoid:  None
Materials to Avoid:  None
Hazardous Decomposition Products:  None known
Other Recommendations:  None

SECTION XI - TOXICOLOGICAL INFORMATION

Liquid ACE / Ariel formulas have a low order of toxicity. If ingested, it may be mildly irritating. It is expected to be moderately emetic.

LD50 (oral, estimated):  > 2g/kg
ED50 (emesis, estimated):  ~ 0.5 g/kg

Chronic Effects:  No chronic health effects reported.
Target Organs:  No target organs reported.
Carcinogenicity:  NTP: No
         IARC: No
         OSHA: No

SECTION XII - ECOLOGICAL INFORMATION

Based on ecotoxicity and fate data for the individual ingredients in these products and for related consumer household cleaning product formulations, it is expected that these products would exhibit a non-hazardous order of toxicity at relevant environmental concentrations.

SECTION XIII - DISPOSAL CONSIDERATIONS

Waste Disposal Method:  Products covered by this MSDS, in their original form, when disposed as waste, are considered non hazardous waste according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with all Federal, state/provincial and local regulations.

Household Use:  Consumer produced household solutions may be disposed of down the drain with running water. Consumer may discard empty container in trash, or recycle where facilities exist.

SECTION XIV - TRANSPORT INFORMATION

U.S. D.O.T.
Ground Transport:  These products are not regulated when transported by ground.
IATA:  These products are not regulated when transported by air.
IMDG:  These products are not regulated when transported by vessel.
SECTION XV - REGULATORY INFORMATION

United States
All intentionally-added components of these products are listed on the US TSCA Inventory.
EPA Registration Number: NA

SARA 313/302/304/311/312 chemicals: None

California: These products have been evaluated and do not require warning labeling under California Proposition 65.
California Hazardous Waste: Yes

State Right-to-Know and CERCLA:
The following ingredients present in the finished product are listed on state right-to-know lists or state worker exposure lists:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Level</th>
<th>CERCLA RQ</th>
<th>IL</th>
<th>MA</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>0.5–5%</td>
<td>100 lbs</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ethanolamine</td>
<td>141-43-5</td>
<td>0.5-5%</td>
<td>NA</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sodium Borate</td>
<td>1330-43-4</td>
<td>1-5%</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION XVI - OTHER INFORMATION

Perfumes contained within these products covered by this MSDS comply with appropriate IFRA guidance.

P&G Hazard Rating: 1  Health: 1  4=EXTREME
Flammability: 1  3=HIGH
Reactivity: 0  2=MODERATE
1=SLIGHT
0=NOT SIGNIFICANT

*N/A. - Not Applicable   *N/K. – Not Known

Data supplied is for use only in connection with occupational safety and health.

DISCLAIMER: This MSDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company’s knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.