MATERIAL SAFETY DATA SHEET

MSDS #: RQ0809340 Issue Date: June, 2008
Supersedes: RQ0809132 Issue Date: June, 2008

SECTION I - PRODUCT IDENTIFICATION

Identity: Automatic Dishwashing Detergent
Brands: CASCADE 2 IN 1 ACTIONPACS (Regular, Citrus Breeze, Cinnamon Apple Scent, Spring Garden & Holiday Line Extensions, Cascade with Bleach Hydroclean Action and Cascade Advanced Power)

P&G Telephone Number: 1-800-844-2544
or call Local Poison Control Center or your physician.

SECTION II - HAZARDS IDENTIFICATION

Potential Health Hazards (Acute and Chronic): (See Section 11 for more information)
Ingestion: Harmful if swallowed.
Eye Contact: If a pouch breaks, contact with its content may cause moderate irritation.
Skin Contact: If a pouch breaks, contact with its content may cause mild irritation.
Inhalation: If pouches are broken, inhaled powder can cause mild respiratory irritation

Signs and Symptoms of Exposure:
Ingestion: Ingestion may result in lodging causing moderate to severe upper gastrointestinal irritation, burning, discomfort which may impede a person's ability to speak or swallow.
Eye Contact: If a pouch breaks, contact with its content may cause moderate irritation.
Skin Contact: If a pouch breaks, contact with its content may cause mild irritation.
Inhalation: None expected. If pouches broken, inhaled powder may cause mild respiratory irritation.

Medical Conditions Generally Known to be Aggravated by Exposure: None

Potential Environmental Effects: (See Section 12 for more information)
SECTION III - COMPOSITION AND INGREDIENTS

Ingredients/Chemical Name: Complex sodium phosphates and sodium carbonate, oxygen bleaching system, enzymes, nonionic wetting agents, sodium silicate, binding agents, dyes, perfume, water soluble film.

Under normal consumer use, this product would not constitute a hazardous product under OSHA Hazard Communication. With increased industrial exposure this mixture, when tested as a whole, is considered an inhalation hazard and eye irritant within the meaning of the OSHA Hazard Communication Standard.

Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200. and/or WHMIS under the HPA:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS No.</th>
<th>Composition Range</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbonic Acid, Disodium Salt</td>
<td>Sodium Carbonate (Soda ash)</td>
<td>497-19-8</td>
<td>15-40%</td>
<td>1.9 g/kg (rats, oral)</td>
</tr>
<tr>
<td>Carbonic Acid Disodium Salt, Compound w/ Hydrogen Peroxide</td>
<td>Sodium Percarbonate</td>
<td>15630-89-4</td>
<td>10-30%</td>
<td>~1 g/kg (rats, oral)</td>
</tr>
<tr>
<td>Silicic acid, sodium salt</td>
<td>Sodium Silicate</td>
<td>1344-09-8</td>
<td>5-10%</td>
<td>~1.8 g/kg (rats, oral)</td>
</tr>
</tbody>
</table>

SECTION IV – FIRST AID INFORMATION

First Aid Procedures:

Ingestion: If swallowed, do NOT induce vomiting. Give a glassful of milk or water and call a poison control centre or physician immediately.

Eye Contact: Flush eyes with water for 15 minutes.

Skin Contact: Rinse exposed area with water.

Inhalation: Leave dusty area.

Note to Physician: (if applicable) Treat symptomatically

Other: Consumer product package has the following precautionary statement: CAUTION: IRRITANT. HARMFUL IF SWALLOWED OR PUT IN MOUTH. MAY IRRITATE EYES OR SKIN, KEEP OUT OF REACH OF CHILDREN. CAUTION: Do not get in eyes. Do not get on skin or clothing. KEEP OUT OF REACH OF CHILDREN. Do not let children touch product in dishwasher. After placing pouch in dispenser cup, close immediately. Do not puncture pouch. FIRST AID TREATMENT: Contains sodium carbonate, sodium silicate and enzymes. If swallowed, give a glassful of water or milk and call a Poison Control Center or doctor immediately. Do not induce vomiting. If in eyes, rinse with water for 15 minutes. If on skin, rinse well with water.

SECTION V - FIRE FIGHTING INFORMATION

Flash Point (Method Used): > 300°F./149°C

Flammable Properties: Liquid part not flammable or combustible.

Upper Flammable Limit: N/A

Lower Flammable Limit: N/A

Explosive Limits:

UEL: N/A

LEL: N/A

Auto-ignition Temperature: N/K

Hazardous Combustion Products: N/K

Explosion Data (Sensitivity to Mechanical Impact): N/A

Explosion Data (Sensitivity to Static Discharge): N/A

Extinguishing Media:

Suitable: CO2, water or dry chemical may be used.

Unsuitable: N/K

Protection of Firefighters:

Specific Hazards Arising from the Material: N/K

Protective Equipment and Precautions for Firefighters: Normal fire-fighting gear.
## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** If pouches are broken and powder is released (e.g., package damage incident), recommendation is to wear gloves and goggles for chemical handling/cleanup, and dust masks if considerable dust is airborne.

**Environmental Precautions:** DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS. Product must be incinerated.

**Methods for Containment:** Prevent spills from reaching waterways.

**Methods for Cleanup:** Minimize dust levels while collecting product (see "inhalation" health effects). Dispose of by incineration.

**Other Information:** (if applicable)

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## SECTION VII – HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Keep product dry.

**Precautions To Be Taken in Storage:** Store in a cool, dry ventilated area. Keep product dry.

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## SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines:** N/A

**Engineering Controls:** N/A

**Personal Protective Equipment (PPE):**

- Eye/Face Protection: If pouches are broken and powder is released to the air, use chemical goggles.
- Skin Protection: Protective gloves (rubber, neoprene) should be used for prolonged direct contact.
- Respiratory Protection: If pouches are broken and powder is released (e.g., package damage incident), recommendation is to wear a dust mask for handling/cleanup.

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## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

| **Appearance (color, physical form, shape):** | Clear pouch with a color liquid top and granular bottom with speckles. |
| **Flash Point (Method Used):** | > 300°F./149°C. (liquid part) |
| **Odor:** | Product is perfumed. |
| **Odor Threshold:** | N/A |
| **Physical State:** | Solid at 20°C/68°F. |
| **Vapor Pressure (mm Hg):** | N/A |
| **Vapor Density (Air=1):** | N/A |
| **Boiling Point:** | N/A |
| **Partition Coefficient (n-octanol/water):** | N/A |
| **Volatil Organic Compound (VOC):** | Not applicable - Product not regulated for VOC Content at State or Federal level. |
| **Solubility in Water:** | Nearly 100% at 20°C/68°F. |
| **Decomposition Temperature:** | N/A |
| **Evaporation Rate (nBuOAc=1):** | N/A |
| **Specific Gravity/Density:** | 0.91 |
| **Melting/Freezing Point:** | N/A |
| **Reserve Alkalinity:** | 13.5 at pH 9.5 |
| **pH (1% solution):** | 10.8 |

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## SECTION X - STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Conditions to Avoid:** N/K

**Incompatible Materials:** N/K

**Hazardous Decomposition Products:** None known

**Possibility of Hazardous Reactions:** None known
### SECTION XI - TOXICOLOGICAL INFORMATION

Information on individual components indicates that if the pouch breaks, airborne dust from the dry material may cause slight respiratory irritation if inhaled, and, direct contact with contents, may cause moderate eye and mild skin irritation.

**Chronic Effects:** No chronic health effects reported.

**Target Organs:** No target organs reported.

**Carcinogenicity:**
- NTP: No
- IARC: No

### SECTION XII - ECOLOGICAL INFORMATION

Under normal and foreseeable uses, there are no concerns for aquatic organisms exposed to product ingredients at the anticipated environmental concentrations. Relevant environmental data have been reviewed and these indicate that the product is compatible with down-the-drain disposal routes, including municipal wastewater treatment processes and septic tank systems. This product is intended for dispersive use and should not be disposed of directly into the environment.

### 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 local, state/provincial and federal regulations.

*Non Household Setting (federal):* Liquids may not be disposed in landfills. This is a dual phase product and liquids must be disposed of by incineration. Dry product must also be incinerated.

*Non Household Setting (California):* Waste Code 561

*Household Use:* Product used in household may be disposed of in refuse or in sewer.

### SECTION XIV - TRANSPORT INFORMATION

**Transportation Information** – Products covered by this MSDS, in their original form, are not regulated for transportation.

For finished packaged product transported by ground (US DOT): – not regulated
For finished packaged product transported by sea (IMDG) – not regulated
For finished packaged product transported by air (IATA): – not regulated
SECTION XV - REGULATORY INFORMATION

UNITED STATES - FEDERAL
All intentionally-added components of this product are listed on the US TSCA Inventory.
EPA Registration Number: Not Applicable

SARA chemicals: This product contains the following SARA 313/302/304/311/312 chemicals:
SARA 311 Sodium Tripolyphosphate (CAS# 7758-29-4) (15-40%)

STATES:
This product is not subject to warning labeling under California Proposition 65.
California Registration Number: Not Applicable.

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>States</th>
<th>CERCLA RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Tripolyphosphate</td>
<td>7758-29-4</td>
<td>15-40%</td>
<td>IL MA PA</td>
<td>5000 lbs</td>
</tr>
<tr>
<td>Sodium Percarbonate</td>
<td>15630-89-4</td>
<td>10-30%</td>
<td>NJ</td>
<td>N/A</td>
</tr>
<tr>
<td>Dipropylene Glycol</td>
<td>25265-71-8</td>
<td>30-60%</td>
<td>PA</td>
<td>N/A</td>
</tr>
<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td>1-5%</td>
<td>IL MA PA RI</td>
<td>N/A</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 the products covered by this MSDS comply with appropriate IFRA guidance.

P&G Hazard Rating:
- Health: 2 (eye) 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.

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