MATERIAL SAFETY DATA SHEET

MSDS #: RQ0814215  
Supersedes: RQ0811199

SECTION I - PRODUCT IDENTIFICATION

Identity: Automatic Dishwashing Rinse Aid  
Finished Product

Brands: Cascade Rinse Aid (Regular or Citrus Scent), Cascade Complete Rinse Aid (Regular Scent)

P&G Telephone Number: 800-765-5516 or call Local Poison Control Center or your physician. 
Emergency (24 hour) Telephone Number: CHEMTREC 1-800-424-9300 – in the U.S. and Canada
1-703-527-3887 - for calls originating elsewhere

SECTION II - HAZARDS IDENTIFICATION

Potential Health Hazards (Acute and Chronic): (See Section 11 for more information)

Ingestion: May cause vomiting if swallowed.
Eye Contact: Contact may cause mild, transient irritation.
Skin Contact: Prolonged/ repeated contact may cause irritation.
Inhalation: Can cause mild respiratory irritation.

Signs and Symptoms of Exposure:

Ingestion: May cause vomiting if swallowed.
Eye Contact: Contact may cause moderate, transient irritation, including redness.
Skin Contact: Contact may cause moderate, transient irritation, including dryness.
Inhalation: Repeated prolonged exposure may cause mild respiratory irritation.

Medical Conditions Generally Known to be Aggravated by Exposure: None known.

Potential Environmental Effects: (See Section 12 for more information)

SECTION III - COMPOSITION AND INGREDIENTS

Ingredients/Chemical Name: Water spot prevention agents, processing aids, perfume and dye.

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/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>Ethanol</td>
<td>64-17-5</td>
<td>3-7%</td>
<td>LD50 = 7.1 g/kg, oral, rats</td>
</tr>
<tr>
<td>1,2,3-Propanetricarboxylic-Acid, 2-Hydroxy-</td>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>1-5%</td>
<td>LD50 - 975 mg/kg in rats</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. If irritation persists, seek medical attention. 
Skin Contact: Rinse exposed area with water. If irritation persists, seek medical attention. 
Inhalation: Get medical attention if irritation persists. 
Note to Physician: (if applicable) Treat symptomatically 
Other: Consumer product package has the following precautionary statement: KEEP OUT OF REACH OF CHILDREN. In case of skin or eye contact, rinse with water. If swallowed, drink a glassful of water to dilute.

SECTION V – FIRE FIGHTING INFORMATION

Flash Point (Method Used): 125°F PM CC 
Although this product has a flashpoint below 200°F (closed cup), it is an aqueous solution (>50% water) that does not sustain combustion. 

Flammable Properties: Mixture is not flammable 
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: None. 

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

Extinguishing Media: 
Suitable: CO2, water or dry chemical. 
Unsuitable: N/K 

Protection of Firefighters: 
Specific Hazards Arising from the Material: N/K 
Protective Equipment and Precautions for Firefighters: Normal firefighting gear.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Protective gloves (rubber, neoprene) should be used for prolonged direct contact. 

Environmental Precautions: 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. The product waste is not considered RCRA hazardous since it is an aqueous solution (>50% water) that contains less than 24% by volume of alcohol. 

Methods for Containment: Prevent spills from reaching a waterway. Sorbents may be used. Read “Waste Disposal Method” below for further information. 

Methods for Cleanup: See Disposal Considerations in Section XIII. 

Other Information: (if applicable): N/A

SECTION VII – HANDLING AND STORAGE

Precautions To Be Taken in Handling: None. 

Precautions To Be Taken in Storage: Store at room temperature.
SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:
Ethanol (CAS# 64-17-5)  ACGIH-TLV 1000 ppm/ OSHA Z-1 PEL 1000 ppm
Zinc Chloride (CAS# 2646-85-7) NIOSH Recommended exposure limit (REL) (for up to a 10-hour workday during a 40-hour workweek) is: 1 mg/m3 / NIOSH STEL is: 2 mg/m3 / ACGIH – TLV 15-minute STEL is: 2 mg/m3

Engineering Controls: N/A

Personal Protective Equipment (PPE):
Eye/Face Protection: None required with normal use. If a splash is likely, chemical goggles may be needed.
Skin Protection: None required with normal use. Protective gloves (rubber, neoprene) should be used for prolonged direct contact.
Respiratory Protection: None required with normal use.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (color, physical form, shape)</td>
<td>Blue or clear liquid</td>
</tr>
<tr>
<td>Flash Point (Method Used)</td>
<td>125°F PM CC.</td>
</tr>
<tr>
<td>Reserve Acidity</td>
<td>0.56 (to pH 4.0)</td>
</tr>
<tr>
<td>Odor</td>
<td>Perfumed</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Miscible in water</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate (nBuOAc=1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity (H₂O=1)</td>
<td>1.02</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>pH (1 % solution)</td>
<td>3.3</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>N/A</td>
</tr>
<tr>
<td>Volatile Organic Compound (VOC)</td>
<td>Not applicable - Product not regulated for VOC Content at State or Federal level.</td>
</tr>
</tbody>
</table>

SECTION X - STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: None.
Incompatible Materials: None.
Hazardous Decomposition Products: None.
Possibility of Hazardous Reactions: None.

SECTION XI - TOXICOLOGICAL INFORMATION

Oral Toxicity: LD50 (rats) > 5 ml/kg.
Dermal Irritation: Not irritating to skin.
Occular Irritation: Not an eye irritant.

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. The product waste is not considered RCRA hazardous since it is an aqueous solution (>50% water) that contains less than 24% by volume of alcohol.

Non-Household Setting (federal): Solutions of diluted rinse agent in the course of use, may be allowed to be flushed down sewer. First check with your local water treatment plant. Recycling is recommended for undiluted scrap product. Do not landfill.

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 - aqueous solutions of ethanol containing <24% ethanol are not subject to regulation under these rules.

For finished packaged product transported by sea (IMDG) – not regulated - aqueous solutions of ethanol containing <24% ethanol are not subject to regulation under these rules.

For finished packaged product transported by air (IATA): – not regulated - aqueous solutions of ethanol containing <24% ethanol are not subject to regulation under these rules.

Canadian Shipping Classification: This product meets the requirements of the TDG Regulations TDG 1.33 Class 3, Flammable Liquids: General Exemptions and TDG 2.18(2) (a) and is not subject to the Dangerous Goods Regulations.
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 304, 311 & 313: Zinc Chloride (CAS# 2646-85-7) (0.5 to 1.5%)

STATES:
This product is not subject to warning labeling under California Proposition 65.

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>Ethanol</td>
<td>64-17-5</td>
<td>3-7%</td>
<td>IL MA</td>
<td>NJ PA RI</td>
</tr>
<tr>
<td>Zinc Chloride</td>
<td>7646-85-7</td>
<td>0.5 to 1.5%</td>
<td>IL MA</td>
<td>NJ PA RI</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
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<td>IL MA</td>
<td>NJ PA RI</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: 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.