

# Material Safety Data Sheet

## Automatic Dishwasher Rinse Aid

### Manufacturer Information

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#### Date Prepared:

3/31/11

### Hazardous Composition

| CAS #      | Component   | Percent |
|------------|---|---------|
| 77-92-9    | Citric acid   | 5-15    |
| 64-17-5    | Ethyl alcohol                                       | 1-5     |
| 68515-73-1 | D-Glucopyranose, oligomeric, decyl octyl glycosides | 0.1-1   |

#### Component Exposure Limits

##### Ethyl alcohol (64-17-5)

ACGIH: 1000 ppm STEL  
OSHA: 1000 ppm TWA; 1900 mg/m3 TWA  
NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA

### Physical/Chemical Properties

|  |               |  |            |
|--|---------------|--|------------|
| <b>Appearance:</b>                     | Slight yellow | <b>Odor:</b>                           | None       |
| <b>Physical State:</b>                 | Liquid        | <b>pH:</b>                             | 2.5        |
| <b>Vapor Pressure:</b>                 | ND            | <b>Vapor Density:</b>                  | ND         |
| <b>Boiling Point:</b>                  | ND            | <b>Melting Point:</b>                  | NA         |
| <b>Solubility (H2O):</b>               | Soluble       | <b>Specific Gravity:</b>               | 1.013 kg/l |
| <b>Evaporation Rate:</b>               | ND            | <b>VOC:</b>                            | 1.92       |
| <b>Octanol/H2O Coeff.:</b>             |               | <b>Flash Point:</b>                    | >55°C      |
| <b>Flash Point Method:</b>             | ND            | <b>Upper Flammability Limit (UFL):</b> | None       |
| <b>Lower Flammability Limit (LFL):</b> | None          | <b>Burning Rate:</b>                   | ND         |
| <b>Auto Ignition:</b>                  | ND            |  |            |

### Fire and Explosion

**Flash Point:** >55°C  
**Upper Flammable Limit (UFL):** None  
**Auto Ignition:** ND  
**Rate of Burning:** ND

**Method Used:** ND  
**Lower Flammable Limit (LFL):** None  
**Flammability Classification:**

#### Extinguishing Media:

Use appropriate media for surrounding fire.

#### Special Fire Fighting Procedures:

Firefighters should wear full protective gear.

#### Unusual Fire and Explosion Hazards:

None

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### Reactivity Data

**Stability:**

This is a stable material.

**Hazardous Decomposition:**

None under normal conditions.

**Incompatibility:**

Do not mix with other cleaning products (and certain not with chlorous products). Reacts violently with strong oxidizing agents, causing fire and explosion hazard.

**Hazardous Polymerization:**

Will not occur.

**Conditions To Avoid:**

Open flame. Overheating. Do not store <0°C and >40°C.

### Health Hazard Data

**Routes of Entry:**

Eyes

**Acute Skin Contact:**

Not expected to present a significant skin hazard.

**Chronic Skin Contact:**

Not Determined.

**Acute Eye Contact:**

Not expected to present a significant eye contact hazard under anticipated conditions of normal use.

**Acute Ingestion:**

May cause sore throat, dizziness, and drowsiness.

**Carcinogenicity:****Component Carcinogenicity****Ethyl alcohol (64-17-5)**

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [in preparation] (in alcoholic beverages) (Group 1 (carcinogenic to humans))

**Medical Conditions Aggravated by Exposure:**

None

**EMERGENCY & FIRST AID PROCEDURES****Ingestion:**

Do not induce vomiting. Seek medical attention.

**Inhalation:**

Move person to non-contaminated air.

**Skin Contact:**

Flush with plenty of water. Seek medical attention if ill effect or irritation develops.

**Eye Contact:**

Rinse immediately and for a long time with plenty of water. Seek medical attention if irritation persists.

### Precautions for Safe Handling and Use

**Steps to taken in case of release or spill:**

Stop the flow of material, if this is without risk. Isolate area. Keep unnecessary personnel away. Spilled product must be collected with sand or an inert absorbent material. Rinse away remainder with water. Avoid release to the environment.

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### Waste Disposal Method:

Waste of this product is considered chemical waste. The legislation concerning disposal of waste can differ from one country/state to another. The disposal should therefore be done according to national or local waste legislation. If in doubt, ask the local waste management authority for advice.

### Handling and Storage

Avoid contact with eyes. Store in a cool, well ventilated and fireproof area, in tightly closed original packaging. Keep out of the reach of children.

### Transportation Information:

### US DOT Information

Shipping Name: Not Regulated

|                         |
|-------------------------|
| <b>Control Measures</b> |
|-------------------------|

### Respiratory:

None required under normal product use conditions.

### Monitoring:

Not Applicable.

### Medical Surveillance:

Not Applicable.

### Skin:

Wear waterproof gloves (preferably neoprene or nitrile rubber) in case of intensive use or contact with undiluted product.

### Eyes:

Wear safety goggles when cleaning accidentally released material.

### Ventilation Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

|                           |
|---------------------------|
| <b>Other Information:</b> |
|---------------------------|

### Additional Information

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