SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Fast Action Rinse- 1422, 1424, 1425
Product code : 00173

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Advantage Chemical, LLC
Temecula, CA, 92590
T 1-855-238-2436

1.4. Emergency telephone number

Emergency number : 1-800-424-9300
ChemTrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Skin Irrit. 2 H315
Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling
Hazard pictograms (GHS-US) :

[Image of Hazard Pictogram]
Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H315 - Causes skin irritation
Precautionary statements (GHS-US) :
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 - If on skin: Wash with plenty of water
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>citric acid</td>
<td>(CAS No) 77-92-9</td>
<td>10 - 40</td>
<td>Aquatic Acute 3, H402</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.
### First-aid measures after inhalation
- Remove person to fresh air and keep comfortable for breathing.

### First-aid measures after skin contact
- Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

### First-aid measures after eye contact
- Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### First-aid measures after ingestion
- Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

#### 4.2. Most important symptoms and effects, both acute and delayed
- **Symptoms/injuries**
  - Tingling/irritation of the skin.
  - Tingling/irritation of the skin.
  - Mild eye irritation.
  - Burns to the gastric/intestinal mucosa.

#### 4.3. Indication of any immediate medical attention and special treatment needed
- Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media
- **Suitable extinguishing media**

- **Unsuitable extinguishing media**
  - Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture
- **Reactivity**
  - Thermal decomposition generates: Corrosive vapours.

#### 5.3. Advice for firefighters
- **Firefighting instructions**
  - Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

- **Protection during firefighting**
  - Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel
- **Emergency procedures**
  - Avoid contact with skin, eyes and clothing.

##### 6.1.2. For emergency responders
- **Protective equipment**
  - Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

- **Emergency procedures**
  - Ventilate area.

#### 6.2. Environmental precautions
- Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up
- **Methods for cleaning up**
  - Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

- **Other information**
  - Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections
- See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling
- **Precautions for safe handling**
  - Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

- **Hygiene measures**
  - Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities
- **Technical measures**
  - Comply with applicable regulations.

- **Storage conditions**
  - Keep only in original container in a cool well ventilated area. Keep container closed when not in use.
Incompatible products: Strong bases. Strong acids.
Incompatible materials: Sources of ignition. Direct sunlight.
Storage temperature: 25 (5 - 42) °C

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Fast Action Rinse- 1422, 1424, 1425</th>
<th>ACGIH</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>citric acid (77-92-9)</th>
<th>ACGIH</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.
Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.
Eye protection: Chemical goggles or face shield. Safety glasses.
Skin and body protection: Wear suitable protective clothing.
Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls: Avoid release to the environment.
Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: Blue
Odour: characteristic
Odour threshold: No data available
pH: <= 2
Melting point: Not applicable
Freezing point: <= 0 °C
Boiling point: >= 100 °C
Flash point: None
Relative evaporation rate (butylacetate=1): No data available
Flammability (solid, gas): No data available
Explosive limits: No data available
Explosive properties: No data available
Oxidising properties: No data available
Vapour pressure: No data available
Relative density: No data available
Relative vapour density at 20 °C: No data available
Density: >= 1.096 g/ml
Solubility: Soluble in water.
Water: Solubility in water of component(s) of the mixture:
   • citric acid: 59 g/100ml
Log Pow: No data available
Log Kow: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Fast Action Rinse- 1422, 1424, 1425
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Viscosity</th>
<th>No data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### 9.2. Other information

**VOC content**: <= 10 g/l

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity
Thermal decomposition generates: Corrosive vapours.

#### 10.2. Chemical stability
Not established.

#### 10.3. Possibility of hazardous reactions
Not established.

#### 10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials
Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**: Not classified
citric acid (77-92-9)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>3000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 11700 mg/kg bodyweight; Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>3000.000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**: Causes skin irritation. pH: <= 2

**Serious eye damage/irritation**: Not classified pH: <= 2

**Respiratory or skin sensitisation**: Not classified

**Germ cell mutagenicity**: Not classified

**Carcinogenicity**: Not classified

**Reproductive toxicity**: Not classified

**Specific target organ toxicity (single exposure)**: Not classified

**Specific target organ toxicity (repeated exposure)**: Not classified

**Aspiration hazard**: Not classified

**Potential adverse human health effects and symptoms**: Based on available data, the classification criteria are not met.

**Symptoms/injuries after skin contact**: Tingling/irritation of the skin.

**Symptoms/injuries after eye contact**: Mild eye irritation.

**Symptoms/injuries after ingestion**: Burns to the gastric/intestinal mucosa.

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Ecology - general**: Before neutralisation, the product may represent a danger to aquatic organisms.

**Ecology - water**: Harmful to aquatic life.
# Safety Data Sheet

**according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations**

## 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Fast Action Rinse- 1422, 1424, 1425</th>
</tr>
</thead>
</table>
| Persistence and degradability      | Not established.  
| **citric acid (77-92-9)**         |  
| Persistence and degradability      | Readily biodegradable in water. Biodegradable in the soil.  
| Biochemical oxygen demand (BOD)    | 0.420 g O₂/g substance  
| Chemical oxygen demand (COD)       | 0.728 g O₂/g substance  
| ThOD                               | 0.686 g O₂/g substance  
| BOD (% of ThOD)                    | (20 day(s)) 0.89  

## 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Fast Action Rinse- 1422, 1424, 1425</th>
</tr>
</thead>
</table>
| Bioaccumulative potential          | Not established.  
| **citric acid (77-92-9)**         |  
| Log Pow                           | -1.72 (Experimental value)  
| Bioaccumulative potential          | Bioaccumulation: not applicable.  

## 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

| Waste treatment methods | Dispose of contents/container in accordance with licensed collector’s sorting instructions.  
| Waste disposal recommendations | Dispose of contents/containers in hazardous or special waste collection point, an approved disposal plant, a licensed hazardous waste disposal contractor or authorized waste collection site in accordance with local, regional and/or international regulation, except for empty clean containers which can be disposed of as non hazardous waste.  
| Ecology - waste materials | Avoid release to the environment.  

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

### Additional information

| Other information | No supplementary information available.  
| Additional information |  
| ADR | No additional information available  
| Transport by sea | No additional information available  
| Air transport | No additional information available  

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[31x742]Fast Action Rinse- 1422, 1424, 1425

### 12.2. Persistence and degradability

- **Fast Action Rinse- 1422, 1424, 1425**
  - Not established.

- **citric acid (77-92-9)**
  - Persistence and degradability: Readily biodegradable in water. Biodegradable in the soil.
  - Biochemical oxygen demand (BOD): 0.420 g O₂/g substance
  - Chemical oxygen demand (COD): 0.728 g O₂/g substance
  - ThOD: 0.686 g O₂/g substance
  - BOD (% of ThOD): (20 day(s)) 0.89

### 12.3. Bioaccumulative potential

- **Fast Action Rinse- 1422, 1424, 1425**
  - Not established.

- **citric acid (77-92-9)**
  - Log Pow: -1.72 (Experimental value)
  - Bioaccumulative potential: Bioaccumulation: not applicable.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

- Effect on the global warming: No known ecological damage caused by this product.
- Other information: Avoid release to the environment.

### SECTION 13: Disposal considerations

- **Waste treatment methods**
  - Dispose of contents/container in accordance with licensed collector’s sorting instructions.
  - Dispose of contents/containers in hazardous or special waste collection point, an approved disposal plant, a licensed hazardous waste disposal contractor or authorized waste collection site in accordance with local, regional and/or international regulation, except for empty clean containers which can be disposed of as non hazardous waste.
  - Avoid release to the environment.

### SECTION 14: Transport information

- **Department of Transportation (DOT)**
  - In accordance with DOT

- **Additional information**
  - No supplementary information available.

- **ADR**
  - No additional information available

- **Transport by sea**
  - No additional information available

- **Air transport**
  - No additional information available
SECTION 15: Regulatory information

15.1. US Federal regulations

citric acid (77-92-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]
No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

National regulations
No additional information available

15.3. US State regulations
No additional information available

SECTION 16: Other information

Other information
: None.

Full text of H-statements:

<table>
<thead>
<tr>
<th>Aquatic Acute 3</th>
<th>Hazardous to the aquatic environment — Acute Hazard, Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
</tbody>
</table>

NFPA health hazard
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard
: 0 - Materials that will not burn.

NFPA reactivity
: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

NFPA specific hazard
: None

HMIS III Rating

Health
: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability
: 0 Minimal Hazard - Materials that will not burn

Physical
: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection
: B

B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.