1. IDENTIFICATION

Product Identifier
Product Name: Buckeye Eco Acid Cleaner

Other means of identification
SDS #: BE-6016
Product Code: 6016

Recommended use of the chemical and restrictions on use
Recommended Use: Waterbased. Foaming acid cleaner.

Details of the supplier of the safety data sheet
Supplier Address: Buckeye International, Inc.
2700 Wagner Place
Maryland Heights, MO 63043 USA

Emergency Telephone Number
1-651-632-8956 (International)
1-800-303-0441 (North America)

Emergency Telephone (24 hr)
INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance: Green liquid
Physical State: Liquid
Odor: Citrus Floral

Classification
This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>10-15</td>
</tr>
</tbody>
</table>

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

4. FIRST-AID MEASURES

First Aid Measures
General Advice: Provide this SDS to medical personnel for treatment.
Eye Contact  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice.

Skin Contact  
Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation  
Remove to fresh air.

Ingestion  
Drink 2-3 large glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Most important symptoms and effects**

**Symptoms**  
Direct eye contact may cause stinging, tearing and redness. May cause redness of skin or a warming sensation. May cause nose and throat irritation.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**  
Treat symptomatically.

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**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**  
Not determined.

**Specific Hazards Arising from the Chemical**  
Not determined.

**Hazardous Combustion Products**  

**Protective equipment and precautions for firefighters**  
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**  
Use personal protective equipment as required.

**Environmental Precautions**  
See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment**  
Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up**  
Dilute with large amounts of water. Pick up with mops into a plastic bucket. Wash area with an alkaline detergent, followed by a clear water rinse. Allow floor to dry before allowing traffic.

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**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on Safe Handling**  
Keep out of the reach of children. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Store at room temperature. Store on low shelves. Store away from caustics and strong alkali.

Packaging Materials
Rinse container before discarding.

Incompatible Materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>15 mg / m³ (Total)</td>
<td>-</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Splash goggles or safety glasses. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection
Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection
Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Green liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Green</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus Floral</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Values</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>2.3 ± 0.2 (conc)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.8 ± 0.2 (1:16 dilution/pH 7 DI Water)</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>100 °C / 212 °F</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
<td>Tag Closed Cup</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>1.0</td>
<td>(Water = 1)</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>n/a-liquid</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.025</td>
<td>(1=Water)</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Infinite</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>
Decomposition Temperature | Not determined
Kinematic Viscosity | Not determined
Dynamic Viscosity | Not determined
Explosive Properties | Not determined
Oxidizing Properties | Not determined

### 10. STABILITY AND REACTIVITY

**Reactivity**
Not reactive under normal conditions.

**Chemical Stability**
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Hazardous Polymerization**
Hazardous polymerization does not occur.

**Conditions to Avoid**
Keep out of reach of children.

**Incompatible Materials**

**Hazardous Decomposition Products**

### 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

**Product Information**

**Eye Contact**
Avoid contact with eyes.

**Skin Contact**
Avoid contact with skin.

**Inhalation**
Avoid breathing vapors or mists.

**Ingestion**
Do not ingest.

**Component Information**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50 (mg/kg) (Rat)</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>3000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>77-82-9</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Information on physical, chemical and toxicological effects

**Symptoms**
Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity**
Carcinogenic potential is unknown.

**Numerical measures of toxicity**
Not determined
12. ECOLOGICAL INFORMATION

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td></td>
<td>1516: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>120: 72 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Other Adverse Effects
Not determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
Not regulated

IATA
Not regulated

IMDG
Not regulated

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
US Federal Regulations

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Not determined</td>
<td>0</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 30-Sep-2014
Revision Date: 29-Jul-2015
Revision Note: New format

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet