1. IDENTIFICATION

Product Identifier
Product Name  Buckeye Star Spray Concentrate

Other means of identification
SDS #  BE-5406
Product Code  5406

Recommended use of the chemical and restrictions on use
Recommended Use  Concentrated Glass Cleaner, Water Based.

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
Company Phone 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  Clear blue-green liquid
Physical State  Liquid
Odor  Citrus floral

Classification
Specific target organ toxicity (single exposure)  Category 3

Signal Word
Warning

Hazard Statements
May cause drowsiness or dizziness

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Precautionary Statements - Response
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a poison center or doctor/physician if you feel unwell

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt;77</td>
</tr>
<tr>
<td>Propylene glycol monomethyl ether</td>
<td>107-98-2</td>
<td>20</td>
</tr>
<tr>
<td>Alpha Olefin Sulfonate</td>
<td>68784-79-2</td>
<td>&lt;2</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**

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation persists.

**Skin Contact**
Wash skin with soap and water. If skin irritation persists, call a physician.

**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

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

**Most important symptoms and effects**

**Symptoms**
May cause drowsiness or dizziness. Eye contact may cause redness or burning sensation. May cause redness of skin or a warming sensation.

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

**Notes to Physician**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

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

**Specific Hazards Arising from the Chemical**
Combustion products may be toxic.

**Hazardous Combustion Products**
Carbon oxides. Oxides of sulfur.

**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.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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

**Environmental Precautions**
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

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**
Pick up with mop, wet/dry vac, or absorbent material. Rinse area with clear water and allow floor to dry before allowing traffic.

7. HANDLING AND STORAGE

Precautions for safe handling

**Advice on Safe Handling**
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

Conditions for safe storage, including any incompatibilities

**Storage Conditions**
Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep container closed when not in use. Store at room temperature. Store locked up.

**Incompatible Materials**
Chlorine bleach.

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>Propylene glycol monomethyl ether 107-98-2</td>
<td>STEL: 150 ppm  TWA: 100 ppm</td>
<td>(vacated) TWA: 100 ppm  (vacated) TWA: 360 mg/m³  (vacated) STEL: 100 ppm  (vacated) STEL: 540 mg/m³</td>
<td>TWA: 100 ppm  TWA: 360 mg/m³  STEL: 150 ppm  STEL: 540 mg/m³</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**
Risk of contact: Wear approved safety goggles.

**Skin and Body Protection**
Rubber gloves. Suitable protective clothing.

**Respiratory Protection**
Use in well-ventilated area.

**General Hygiene Considerations**
Handle in accordance with good industrial hygiene and safety practice.
## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear blue-green liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Blue-green</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus floral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>8.0-9.0 (conc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.0-7.0 (1:40 dilution)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>100 °C / 212 °F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
<td>Tag Closed Cup</td>
<td>(Water = 1)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid-Not Flammable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not Applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not Applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Infinite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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 separated from incompatible substances. Keep out of reach of children.

#### Incompatible Materials
Chlorine bleach.

#### Hazardous Decomposition Products
Carbon oxides. Sulfur oxides.
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact  
Avoid contact with eyes.

Skin Contact  
Avoid contact with skin.

Inhalation  
May cause drowsiness or dizziness.

Ingestion  
Do not ingest.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol monomethyl ether 107-98-2</td>
<td>= 5200 mg/kg (Rat)</td>
<td>= 13000 mg/kg (Rabbit)</td>
<td>= 54.6 mg/L (Rat) 4 h &gt; 24 mg/L (Rat) 1 h</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  
This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - single exposure  
May cause drowsiness or dizziness.

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>Propylene glycol monomethyl ether 107-98-2</td>
<td>20.8: 96 h Pimephales promelas g/L LC50 static 4600 - 10000: 96 h Leuciscus idus mg/L LC50 static</td>
<td>23300: 48 h Daphnia magna mg/L EC50</td>
<td></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>Propylene glycol monomethyl ether</td>
<td>-0.437</td>
</tr>
</tbody>
</table>

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>TSCA</th>
<th>Listed</th>
</tr>
</thead>
</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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol monomethyl ether</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>107-98-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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>Health Hazards</td>
<td>1</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>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazards</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 27-Dec-2011
Revision Date: 19-Aug-2014
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