1. IDENTIFICATION

Product Identifier
Product Name Buckeye Sanicare Pine Quat

Other means of identification
SDS # BE-5078
Product Code 5078
Registration Number(s) EPA Reg. No. 47371-131-559
UN/ID No UN3082

Recommended use of the chemical and restrictions on use
Recommended Use EPA Registered Germicidal 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
Company Phone Number 1-314-291-1900
Emergency Telephone (24 hr) Transportation - INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)
Medical - (International) 1-651-632-8956 (North America) 1-800-303-0441

2. HAZARDS IDENTIFICATION

Emergency Overview This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-EPA registered chemicals. Please see Section 15 for additional EPA information.

Appearance Clear green solution
Physical state Liquid
Odor Pine

Classification

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Signal Word
Danger

Hazard statements
Causes skin irritation
Causes serious eye damage
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a poison center or doctor/physician
IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

Other hazards
Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didecyldimethylammonium chloride</td>
<td>7173-51-5</td>
<td>2-3</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>0.1-1</td>
</tr>
<tr>
<td>Alkyl dimethyl benzyl ammonium chloride (C12-16)</td>
<td>68424-85-1</td>
<td>1.5-2</td>
</tr>
<tr>
<td>N,N-DIMETHYLOCTYLAMINE-N-OXIDE</td>
<td>2605-78-9</td>
<td>0.5-1</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 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

Skin Contact IF ON SKIN: Wash with plenty of water and soap. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

Ingestion Drink 2-3 large glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects

Symptoms Causes skin irritation. Causes serious eye damage. May cause irritation to the mucous membranes and upper respiratory tract. Coughing. Drowsiness.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage.
5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Water. Foam. Dry chemical.

**Unsuitable Extinguishing Media** Not determined.

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

**Hazardous Combustion Products** Carbon oxides. Nitrogen oxides (NOx).

**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**

- **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. Wash face, hands and any exposed skin thoroughly after handling.

**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. Do not contaminate water, food, or feed by storage or disposal.

- **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>Ethyl Alcohol 64-17-5</td>
<td>STEL: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
<td>IDLH: 3300 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 1900 mg/m³ (vacated) TWA: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 1900 mg/m³ (vacated)</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.

Skin and Body Protection
Rubber gloves. Suitable protective clothing.

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.

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>Clear green solution</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Clear green</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Pine</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>

Flash Point
>93.3 °C / >200 °F

Evaporation Rate
1.0

Flammability (Solid, Gas)
Liquid-Not Applicable

Flammability Limits in Air
Upper Flammability Limits
Not Applicable

Lower Flammability Limit
Not Applicable

Vapor Pressure
Not determined

Vapor Density
Not determined

Relative Density
1.00

Water Solubility
Infinite

Solubility in other solvents
Not determined

Partition Coefficient
Not determined

Auto-ignition Temperature
Not determined

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

Incompatible Materials

Hazardous Decomposition Products
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Causes serious eye damage.

Skin Contact
Causes skin irritation.

Inhalation
Avoid breathing vapors or mists.

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>Didecyldimethylammonium chloride 7173-51-5</td>
<td>= 84 mg/kg  ( Rat )</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethyl Alcohol 84-17-5</td>
<td>= 7060 mg/kg ( Rat )</td>
<td>-</td>
<td>= 124.7 mg/L ( Rat ) 4 h</td>
</tr>
<tr>
<td>Alkyl dimethyl benzyl ammonium chloride (C12-16) 68424-85-1</td>
<td>= 428 mg/kg ( Rat )</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
The ingredient in this product is only classified as a carcinogen when consumed as an alcoholic beverage in long-term studies.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol 64-17-5</td>
<td>A3</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
</tbody>
</table>
12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>12.0 - 16.0: 96 h Oncorhynchus</td>
<td>10800: 24 h Daphnia magna</td>
<td>13000 - 15100: 96 h Pimephales promelas</td>
</tr>
<tr>
<td>64-17-5</td>
<td>mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas</td>
<td>flow-through 100: 96 h</td>
<td>mg/L EC50 2: 48 h Daphnia magna mg/L</td>
</tr>
<tr>
<td></td>
<td>mL/L LC50 static</td>
<td>Pimephales promelas mg/L 9268 - 14221: 48 h</td>
<td>Daphnia magna mg/L LC50</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>Ethyl Alcohol</td>
<td>64-17-5</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.

California Hazardous Waste Status

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>64-17-5</td>
<td></td>
</tr>
</tbody>
</table>
14. TRANSPORT INFORMATION

Note

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

DOT

UN/ID No
UN3082

Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s. (Didecyldimethylammonium chloride, Alkyldimethylbenzyl ammonium chloride)

Hazard Class
9

Packing Group
III

IATA

UN/ID No
UN3082

Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s. (Didecyldimethylammonium chloride, Alkyldimethylbenzyl ammonium chloride)

Hazard Class
9

Packing Group
III

IMDG

UN/ID No
UN3082

Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s. (Didecyldimethylammonium chloride, Alkyldimethylbenzyl ammonium chloride)

Hazard Class
9

Packing Group
III

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL/NDSL</th>
<th>EINECS/ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didecyldimethylammonium chloride</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Alkyl dimethyl benzyl ammonium chloride (C12-16)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:

- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- **EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- **ENCS** - Japan Existing and New Chemical Substances
- **IECSC** - China Inventory of Existing Chemical Substances
- **KECL** - Korean Existing and Evaluated Chemical Substances
- **PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- **AICS** - Australian Inventory of Chemical Substances

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).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTA 60-00-4</td>
<td>5000 lb</td>
<td></td>
<td>RQ 5000 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 2270 kg final RQ</td>
</tr>
</tbody>
</table>
SARA 313
Not determined

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).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTA</td>
<td>5000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol 64-17-5</td>
<td>Carcinogen, Developmental</td>
</tr>
</tbody>
</table>

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>Ethyl Alcohol 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>EDTA 60-00-4</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

EPA Pesticide Registration Number EPA Reg. No. 47371-131-559

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**EPA Pesticide Label**
Signal Word: Danger

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Difference between SDS and EPA pesticide label**

<table>
<thead>
<tr>
<th></th>
<th>EPA</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signal Word</strong></td>
<td>Danger</td>
<td>Danger</td>
</tr>
<tr>
<td><strong>Acute Toxicity - Inhalation</strong></td>
<td>Harmful if inhaled</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>N/A</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td>Causes irreversible eye damage</td>
<td>Causes serious eye damage</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

NFPA

- Health Hazards: 2
- Flammability: 1
- Instability: 0
- Special Hazards: Not determined

HMIS

- Health Hazards: Not determined
- Flammability: Not determined
- Physical hazards: Not determined
- Personal Protection: Not determined

Issue Date: 27-Dec-2011
Revision Date: 13-Sep-2017
Revision Note: Regulatory Update

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