1. IDENTIFICATION

Product Identifier
Product Name: Buckeye Eco E52

Other means of identification
SDS #: BE-6052
Product Code: 6052

Recommended use of the chemical and restrictions on use
Recommended Use: Water based extraction carpet 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: 314-291-1900
24 Hr Medical Emergency Phone: 1-800-303-0441
651-632-8956

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

2. HAZARDS IDENTIFICATION

Appearance: Clear liquid
Physical State: Liquid
Odor: Fresh and clean fragrance

Classification

Skin sensitization: Category 1
Reproductive toxicity: Category 1B

Signal Word
Danger

Hazard Statements
May damage fertility or the unborn child
May cause an allergic skin reaction

Page 1 / 9
Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response
If exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

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

Other Hazards
Toxic to aquatic life with long lasting effects

Unknown Acute Toxicity
3.04% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>1-10</td>
</tr>
<tr>
<td>EDTA</td>
<td>60-00-4</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Borax</td>
<td>1303-96-4</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>1336-21-6</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>&lt;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**

**General Advice**
If exposed or concerned: Get medical advice/attention.

**Eye Contact**
Flush with cool water for 15 minutes. If irritation occurs, call a physician.

**Skin Contact**
Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**Inhalation**
Remove to fresh air.

**Ingestion**
Give two large glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

**Most important symptoms and effects**

**Symptoms**
May damage fertility or the unborn child. May cause an allergic skin reaction.
**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.

**Unsuitable Extinguishing Media** Not determined.

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


**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.

**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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store locked up. Keep container closed when not in use. Store at room temperature.

**Incompatible Materials** Do not mix with chlorinated detergents (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>Borax 1303-96-4</td>
<td>STEL: 6 mg/m³ inhalable fraction</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 2 mg/m³ inhalable fraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 1310-73-2</td>
<td>Ceiling: 2 mg/m³</td>
<td>TWA: 2 mg/m³ (vacated) Ceiling: 2 mg/m³</td>
<td>IDLH: 10 mg/m³ Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>ACGIH TLV</td>
<td>OSHA PEL</td>
<td>NIOSH IDLH</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>STEL: 10 mg/m³ resolvable fraction TWA: 2 mg/m³ resolvable fraction</td>
<td>TWA: 5 mg/m³ fume TWA: 15 mg/m³ total dust TWA: 5 mg/m³ resolvable fraction (vacated) TWA: 5 mg/m³ fume (vacated) TWA: 10 mg/m³ total dust (vacated) STEL: 10 mg/m³ fume</td>
<td>IDLH: 500 mg/m³ Ceiling: 15 mg/m³ dust TWA: 5 mg/m³ dust and fume STEL: 10 mg/m³ fume</td>
</tr>
</tbody>
</table>

### Appropriate engineering controls

**Engineering Controls**
Maintain adequate ventilation.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection**
Use splash goggles and face shield when eye contact may occur.

**Skin and Body Protection**
Wear rubber gloves or other impervious gloves. Footwear that keeps feet dry is suggested.

**Respiratory Protection**
None under normal use conditions.

### General Hygiene Considerations
Wash thoroughly with soap and water after handling.

## 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 liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Fresh and clean fragrance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>9.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>1.0</td>
<td></td>
<td>(Water = 1)</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid-Not applicable</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>1.04</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>
<tr>
<td>Density</td>
<td>1.04 gr/ml or 8.67 lbs/gal</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
Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to Avoid
Incompatible Materials.

Incompatible Materials
Do not mix with chlorinated detergents (bleach).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Avoid contact with eyes.

Skin Contact
Avoid contact with skin.

Inhalation
Do not inhale.

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>Benzyl alcohol 100-51-6</td>
<td>1230 mg/kg (Rat)</td>
<td>= 2 g/kg (Rabbit)</td>
<td>= 8.8 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Sodium disopropynaphthalene sulphonate</td>
<td>1350 mg/kg (Rat)</td>
<td>4200 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>1322-93-6</td>
<td>EDTA 60-00-4</td>
<td>= 1700 mg/kg (Rat)</td>
<td>-</td>
</tr>
<tr>
<td>Borax 1303-96-4</td>
<td>3493 mg/kg (Rat)</td>
<td>2660 mg/kg (Rat)</td>
<td>&gt; 10000 mg/kg (Rabbit)</td>
</tr>
<tr>
<td>Caustic Soda 1310-73-2</td>
<td>-</td>
<td>1350 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Ammonium hydroxide 1336-21-6</td>
<td>350 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dilsopropynaphthalene 38640-62-9</td>
<td>3900 mg/kg (Rat)</td>
<td>&gt; 4500 mg/kg (Rat)</td>
<td>&gt; 5.64 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Zinc oxide 1314-13-2</td>
<td>&gt; 5000 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

**Sensitization**
May cause an allergic skin reaction.

**Carcinogenicity**
Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Reproductive toxicity**
May damage fertility or the unborn child.

**Numerical measures of toxicity**
Not determined

**Unknown Acute Toxicity**
3.04% of the mixture consists of ingredient(s) of unknown toxicity.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Toxic 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>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl alcohol 100-51-6</td>
<td>35: 3 h <em>Anabaena variabilis</em> mg/L EC50</td>
<td>460: 96 h <em>Pimephales promelas</em> mg/L LC50 static 10: 96 h <em>Lepomis macrochirus</em> mg/L LC50 static</td>
<td>EC50 = 50 mg/L 5 min EC50 = 63.7 mg/L 15 min EC50 = 63.7 mg/L 5 min EC50 = 71.4 mg/L 30 min</td>
<td>23: 48 h water flea mg/L EC50</td>
</tr>
<tr>
<td>EDTA 60-00-4</td>
<td>1.01: 72 h <em>Desmodesmus subspicatus</em> mg/L EC50</td>
<td>34 - 62: 96 h <em>Lepomis macrochirus</em> mg/L LC50 static 44.2 - 76.5: 96 h <em>Pimephales promelas</em> mg/L LC50 static</td>
<td>113: 48 h <em>Daphnia magna</em> mg/L EC50 Static</td>
<td></td>
</tr>
<tr>
<td>Caustic Soda 1310-73-2</td>
<td>45.4: 96 h <em>Oncorhynchus mykiss</em> mg/L LC50 static</td>
<td>8.2: 96 h <em>Pimephales promelas</em> mg/L LC50 static</td>
<td>0.66: 48 h water flea mg/L EC50 0.66: 48 h <em>Daphnia pulex</em> mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>Ammonium hydroxide 1336-21-6</td>
<td>1000: 96 h <em>Cyprinus carpio</em> mg/L LC50 static 1000: 96 h <em>Oryzias latipes</em> mg/L LC50 static</td>
<td>2.3: 24 h <em>Daphnia magna</em> 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>Benzyl alcohol 100-51-6</td>
<td>1.1</td>
</tr>
<tr>
<td>Dilsopropylnaphthalene 38640-62-9</td>
<td>&gt;4</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>Borax 1303-96-4</td>
<td>Toxic</td>
</tr>
<tr>
<td>Caustic Soda 1310-73-2</td>
<td>Toxic Corrosive</td>
</tr>
<tr>
<td>Ammonium hydroxide 1336-21-6</td>
<td>Toxic Corrosive</td>
</tr>
<tr>
<td>Zinc oxide 1314-13-2</td>
<td>Toxic</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
Not regulated

IATA
Not regulated

IMDG

Marine Pollutant
This material may meet the definition of a marine pollutant

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>Benzyl alcohol</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td></td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>EDTA</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td></td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Borax</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td></td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td></td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Zinc oxide 1314-13-2</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td></td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></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**

<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>RQ 5000 lb final RQ</td>
<td>RQ 2270 kg final RQ</td>
</tr>
<tr>
<td>Caustic Soda 1310-73-2</td>
<td>1000 lb</td>
<td>RQ 1000 lb final RQ</td>
<td>RQ 454 kg final RQ</td>
</tr>
<tr>
<td>Ammonium hydroxide 1336-21-6</td>
<td>1000 lb</td>
<td>RQ 1000 lb final RQ</td>
<td>RQ 454 kg final RQ</td>
</tr>
</tbody>
</table>

**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)**

<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>
<tr>
<td>Caustic Soda 1310-73-2</td>
<td>1000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ammonium hydroxide 1336-21-6</td>
<td>1000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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>Benzyl alcohol 100-51-6</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>
<tr>
<td>Borax 1303-96-4</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Caustic Soda 1310-73-2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ammonium hydroxide 1336-21-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Zinc oxide 1314-13-2</td>
<td>X</td>
<td>X</td>
<td>X</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>1</td>
<td></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></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

- **Issue Date:** 31-Mar-2015
- **Revision Date:** 09-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