1. IDENTIFICATION

Product Name  Boric Acid Mixed Indicator Solution
Product Code  2269
Recommended Use  For laboratory, scientific, R&D or manufacturing use.
Company  E K Industries, Inc.
          1403 Herkimer St.
          Joliet, IL 60432
          Tel. (800) 283-4244
Emergency Telephone  Call CHEMTREC 1-800-424-9300  (EKI CCN 7453)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Reproductive toxicity | Category 1B |

Label elements

Signal word  Danger

Hazard statements
May damage fertility or the unborn child.

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.

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention.

Precautionary Statements - Storage
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>&lt;95</td>
</tr>
<tr>
<td>Boric Acid</td>
<td>10043-35-3</td>
<td>2</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Methylene blue</td>
<td>7220-79-3</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Bromocresol Green sodium salt</td>
<td>62625-32-5</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures

Eye contact
Immediately flush with plenty of water for at least 15 minutes, separating eyelids occasionally. Remove contact lenses if present. Get immediate medical attention.

Skin contact
Wash skin with soap and water.

Inhalation
Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion
Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms
No information available.

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
No information available.

Protective equipment and precautions for firefighters
Firefighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation, especially in confined areas.

Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

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

Methods for cleaning up
Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE
Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials
None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric Acid 10043-35-3</td>
<td>STEL: 6 mg/m³ inhalable particulate matter TWA: 2 mg/m³ inhalable particulate matter</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethyl alcohol 64-17-5</td>
<td>STEL: 1000 ppm</td>
<td>TWA: 1000 ppm TWA: 1900 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m³</td>
<td>IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls
Emergency showers, eyewash stations, ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective gloves and protective clothing.

Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

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

Physical state: Liquid
Appearance: Clear, green
Odor: Faint, characteristic
Odor threshold: No information available

pH: No information available
Melting point / freezing point: No information available
Boiling point / boiling range: No information available
Flash point: No information available
Evaporation rate: No information available
Flammability (solid, gas): No information available
Flammability Limit in Air
Upper flammability limit: No information available
Lower flammability limit: No information available
Vapor pressure: No information available
Vapor density: No information available
Relative density: No information available
Water solubility: Miscible with water
Solubility in other solvents: No information available
Partition coefficient: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Kinematic viscosity: No information available
10. STABILITY AND REACTIVITY

Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
No data available.

Eye contact
No data available.

Skin contact
No data available.

Ingestion
No data available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water 7732-18-5</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Boric Acid 10043-35-3</td>
<td>= 2660 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 0.16 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Ethyl alcohol 64-17-5</td>
<td>= 7060 mg/kg (Rat)</td>
<td>-</td>
<td>= 124.7 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

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

Sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
This chemical does not contain any carcinogens or potential carcinogens as listed by ACGIH, OSHA, IARC or NTP.

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric Acid 10043-35-3</td>
<td>-</td>
<td>1020: 72 h Carassius auratus mg/L LC50 flow-through</td>
<td>115 - 153: 48 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>Ethyl alcohol 64-17-5</td>
<td>-</td>
<td>12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through</td>
<td>9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static</td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
No information available.
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric Acid</td>
<td>-0.757</td>
</tr>
<tr>
<td>10043-35-3</td>
<td></td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>-0.32</td>
</tr>
<tr>
<td>64-17-5</td>
<td></td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

### 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**
Do not reuse container. Emptied containers may contain residue. Continue to follow label warnings after container is emptied.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric Acid</td>
<td>Toxic</td>
</tr>
<tr>
<td>10043-35-3</td>
<td></td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>64-17-5</td>
<td></td>
</tr>
</tbody>
</table>

### 14. TRANSPORT INFORMATION

Transportation information is provided as a general reference only and may not be applicable in all situations. This information applies to non-bulk shipments only. Per 49 CFR §173.22, it is the shipper’s responsibility to ensure that all materials are properly packaged, classified and labeled prior to shipment.

**DOT**
Not regulated

**IATA**
Not regulated

### 15. REGULATORY INFORMATION

**US Federal Regulations**

**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

**SARA 311/312 Hazard Categories**

- Acute health hazard: No
- Chronic Health Hazard: No
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive Hazard: No

**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)

**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). There may be specific reporting requirements at the local, regional, or state level
pertaining to releases of this material

**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</td>
</tr>
<tr>
<td></td>
<td>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>Water 7732-18-5</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Boric Acid 10043-35-3</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethyl alcohol 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**16. OTHER INFORMATION**

Prepared By: EKI Regulatory Affairs (Email: reg@eki-chem.com)
Revision Date: 03-Jul-2017

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End of Safety Data Sheet