Boric Acid, 4% w/v with Indicator

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 06/03/2013  Revision date: 12/16/2016  Supersedes: 06/03/2013  Version: 1.1

SECTION 1: Identification

1.1. Identification
Product form : Mixture
Product name : Boric Acid, 4% w/v with Indicator
Product code : LC11750

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : For laboratory and manufacturing use only.

1.3. Details of the supplier of the safety data sheet
LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Reproductive toxicity Category 1B  H360
Full text of H statements : see section 16

2.2. Label elements
GHS-US labeling
Hazard pictograms (GHS-US) :
GHS08
Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H360 - May damage fertility or the unborn child
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear eye protection, protective gloves  
P308+P313 - IF exposed or concerned: Get medical advice/attention  
P405 - Store locked up  
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards
Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>95.998</td>
<td>Not classified</td>
</tr>
<tr>
<td>Boric Acid</td>
<td>(CAS No) 10043-35-3</td>
<td>4</td>
<td>Repr. 1B, H360</td>
</tr>
<tr>
<td>Bromocresol Green, Sodium Salt, ACS</td>
<td>(CAS No) 62625-32-5</td>
<td>0.001</td>
<td>Not classified</td>
</tr>
<tr>
<td>Methyl Red, Sodium Salt, ACS</td>
<td>(CAS No) 845-10-3</td>
<td>0.001</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
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Full text of hazard classes and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation: Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries: May damage fertility. May damage the unborn child.
Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: Slight irritation.
Symptoms/injuries after eye contact: May cause slight irritation.
Symptoms/injuries upon intravenous administration: Not available.
Chronic symptoms: Affection of the renal tissue. Change in the haemogramme/blood composition.

4.3. Indication of any immediate medical attention and special treatment needed
Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Not flammable.
Explosion hazard: Not applicable.
Reactivity: None.

5.3. Advice for firefighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information: Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures: Isolate from fire, if possible, without unnecessary risk.

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

Hygiene measures: Wash exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep only in the original container in a cool, well ventilated place away from: incompatible materials. Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (mg/m³)</th>
<th>ACGIH Ceiling (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric Acid (10043-35-3)</td>
<td>2 mg/m³</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Bromocresol Green, Sodium Salt, ACS (62625-32-5)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Methyl Red, Sodium Salt, ACS (845-10-3)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Personal protective equipment: Safety glasses. Gloves.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: Respiratory protection not required in normal conditions.

Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: Liquid.

Color: Pink

Odor: Odorless

Odor threshold: No data available

pH: No data available

Melting point: No data available

Freezing point: No data available

Boiling point: No data available

Flash point: No data available

Relative evaporation rate (butyl acetate=1): No data available
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>None.</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
None.

10.2. Chemical stability
Not established.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products
boron.

SECTION 11: Toxicological information
11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact
Acute toxicity : Not classified

Boric Acid (10043-35-3)
LD50 oral rat 2660 mg/kg
LD50 dermal rabbit 2000 mg/kg

Water (7732-18-5)
LD50 oral rat ≥ 90000 mg/kg
ATE US (oral) 90000.000 mg/kg body weight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
   Based on available data, the classification criteria are not met
Carcinogenicity : Not classified

Reproductive toxicity : May damage fertility or the unborn child.
   Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure) : Not classified
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Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation : May cause respiratory irritation.
Symptoms/injuries after skin contact : Slight irritation.
Symptoms/injuries after eye contact : May cause slight irritation.
Symptoms/injuries upon intravenous administration : Not available.
Chronic symptoms : Affection of the renal tissue. Change in the haemogramme/blood composition.

SECTION 12: Ecological information

12.1. Toxicity

Boric Acid (10043-35-3)
LC50 fish 1 5600 mg/l Gambusia affinis
EC50 Daphnia 1 115 mg/l
EC50 Daphnia 2 658 - 875 mg/l

12.2. Persistence and degradability

Boric Acid, 4% w/v with Indicator
Persistence and degradability Not established.
Boric Acid (10043-35-3)
Persistence and degradability Not established.
Water (7732-18-5)
Persistence and degradability Not established.
Bromocresol Green, Sodium Salt, ACS (62625-32-5)
Persistence and degradability Not established.
Methyl Red, Sodium Salt, ACS (845-10-3)
Persistence and degradability Not established.

12.3. Bioaccumulative potential

Boric Acid, 4% w/v with Indicator
Bioaccumulative potential Not established.
Boric Acid (10043-35-3)
Log Pow -0.757
Bioaccumulative potential Not established.
Water (7732-18-5)
Bioaccumulative potential Not established.
Bromocresol Green, Sodium Salt, ACS (62625-32-5)
Bioaccumulative potential Not established.
Methyl Red, Sodium Salt, ACS (845-10-3)
Bioaccumulative potential Not established.

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

<table>
<thead>
<tr>
<th>CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boric Acid, 4% w/v with Indicator</strong></td>
</tr>
<tr>
<td>WHMIS Classification</td>
</tr>
<tr>
<td><strong>Boric Acid (10043-35-3)</strong></td>
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<td>Listed on the Canadian DSL (Domestic Substances List)</td>
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</tbody>
</table>

EU-Regulations
No additional information available

National regulations

| **Boric Acid (10043-35-3)** |
| Listed on the Canadian IDL (Ingredient Disclosure List) |

| **Bromocresol Green, Sodium Salt, ACS (62625-32-5)** |
| Not listed on the Canadian IDL (Ingredient Disclosure List) |

| **Methyl Red, Sodium Salt, ACS (845-10-3)** |
| Not listed on the Canadian IDL (Ingredient Disclosure List) |

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm
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SECTION 16: Other information

Revision date : 12/16/2016
Other information : None.
Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>H360</th>
<th>May damage fertility or the unborn child</th>
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</table>

**NFPA health hazard**: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

**NFPA fire hazard**: 0 - Materials that will not burn.

**NFPA reactivity**: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**HMIS III Rating**
- **Health**: 2 Moderate Hazard - Temporary or minor injury may occur
- **Flammability**: 0 Minimal Hazard - Materials that will not burn
- **Physical**: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

**Personal protection**: C
- C - Safety glasses, Gloves, Synthetic apron

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