

## Boric Acid, 4% (w/v) Aqueous, with Indicator

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Boric Acid, 4% (w/v) Aqueous, with Indicator

**Synonyms/Generic Names:** None

**Product Number:** 8245

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Hazard Not Otherwise Classified (HNOC):** None

**Signal Word:** Danger

**Pictograms:**



**GHS Classification:**

Reproductive toxicity	Category 2
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**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H361	Suspected of damaging fertility for the unborn child.
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**Precautionary Statements:**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

**Potential Health Effects**

<b>Eyes</b>	Causes eye irritation.
<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Skin</b>	May cause skin irritation.
<b>Ingestion</b>	May be harmful if swallowed.

**NFPA Ratings**

<b>Health</b>	2
<b>Flammability</b>	0
<b>Reactivity</b>	0
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	2
<b>Fire</b>	0
<b>Reactivity</b>	0

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Water	Balance	7732-18-5	231-791-2	H <sub>2</sub> O	18.00 g/mol
Boric Acid	3-5	10043-35-3	233-139-2	H <sub>3</sub> BO <sub>3</sub>	61.83 g/mole
Ethyl Alcohol	1-2	64-17-5	200-578-6	C <sub>2</sub> H <sub>5</sub> OH	46.07 g/mol
Methyl Red	<1	845-10-3	212-682-9	C <sub>15</sub> H <sub>14</sub> O <sub>2</sub> N <sub>3</sub> Na	291.28 g/mol
Bromocresol Green	<1	62625-32-5	263657-4	C <sub>21</sub> H <sub>13</sub> Br <sub>4</sub> NaO <sub>5</sub> S	720.00 g/mol

**4. FIRST-AID MEASURES**

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin</b>	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

**5. FIRE-FIGHTING MEASURES**

<b>Suitable (and unsuitable) extinguishing media</b>	Product is not flammable. Use appropriate media for adjacent fire. Cool unopened containers with water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	May emit toxic fumes (carbon oxides, boron oxides, nitrogen oxides, sodium oxides, hydrogen bromide, sulfur oxides) under fire conditions. (See also Stability and Reactivity section).

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Boric Acid	2 mg/m <sup>3</sup>	TLV	ACGIH
	6 mg/m <sup>3</sup>	STEL	ACGIH
Ethyl Alcohol	1000 ppm 1900 mg/m <sup>3</sup>	REL	NIOSH
	1000 ppm 1900 mg/m <sup>3</sup>	PEL	OSHA
	1000 ppm 1880 mg/m <sup>3</sup>	STEL	ACGIH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, and apron or lab coat.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Translucent red liquid.
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	Not Available
Vapor density	Not Available
Specific gravity	1.02-1.04
Solubility (ies)	Not Available
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Sensitive to moisture.
<b>Incompatible Materials</b>	Potassium, acid anhydrides.
<b>Hazardous Decomposition Products</b>	Carbon oxides, boron oxides, nitrogen oxides, sodium oxides, hydrogen bromide, sulfur oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Skin</b>	Not Available
<b>Eyes</b>	Not Available
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	Not Available

### Carcinogenicity

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	A3: Confirmed animal carcinogen with unknown relevance to humans (ethyl alcohol).
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Redness, itching
<b>Eyes</b>	Redness, itching, tearing, conjunctivitis
<b>Respiratory</b>	Irritation of mucous membranes, coughing, wheezing, shortness of breath
<b>Ingestion</b>	Irritation and burning sensations of mouth and throat, nausea, vomiting, abdominal pain.

<b>Chronic Toxicity</b>	Not Available
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<b>Teratogenicity</b>	Teratogen; presumed human reproductive toxicant
<b>Mutagenicity</b>	Mutagenic effects have occurred in microorganisms
<b>Embryotoxicity</b>	May cause harm; developmental effects have occurred in experimental animals
<b>Target Organ(s)</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

<b>Aquatic Vertebrate</b>	Not Available
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

## 14. TRANSPORTATION INFORMATION

US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

## 15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Listed: Ethyl Alcohol
Rhode Island: Hazardous Substance List	Listed: Ethyl Alcohol
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Listed: Ethyl Alcohol

Pennsylvania: Hazardous Substance List	Listed: Ethyl Alcohol
New Jersey: Right to Know Hazardous Substance List	Listed: Ethyl Alcohol
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Chronic Health Hazard.
SARA 312	Chronic Health Hazard.
SARA 313	Not Listed
WHMIS Canada	Class B2: Flammable and combustible material – Flammable liquid. Class D2B: Poisonous and infectious material – Other effects – Toxic.

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## 16. OTHER INFORMATION

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Revision	Date
Original	02/12/2013
Revision 1	12/19/2016
Revision 2	09/27/2018
Revision 3	04/25/2022

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