RICCA CHEMICAL COMPANY®

# Safety Data Sheet

Classified According to Canada Hazardous Product Regulations SOR/2015-17 (HPR 2022)

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation** Boric Acid, 2% (w/v) with Mixed Indicator for Ammonia and Kjeldahl Nitrogen Analysis

**Product Number** 1064

**Other Identifying Product Numbers** 1064-1, 1064-16, 1064-2.5, 1064-32, 1064-5

### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

### 1.3. Details of the Supplier of the Safety Data Sheet

**Company** Ricca Chemical Company
**Address** 412 West Fork Drive

Arlington, TX 76012 USA

**Telephone** 888-467-4222

### 1.4. Emergency Telephone Number (24 hours)

| | |
|---|---|
| CHEMTREC (USA) | 800-424-9300 |
| CHEMTREC (International) | 1+ 703-527-3887 |

### 1.5. Distributor Address

Ricca Chemical Company
412 West Fork Drive
Arlington, TX 76012 USA

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## SECTION 2: Hazard Identification

### 2.1. Classification of the Hazardous Product

| Hazard Class | Category | Hazard Statements | Precautionary Statements |
|---|---|---|---|
| Flammable Liquids | Category 4 | H227 | P210,P280,P370+P378,P403,P501 |
| Reproductive Toxicity | Category 1B | H360 | P201,P202,P280,P308+P313,P405, P501 |

### 2.2. GHS Label Elements

**Pictograms:**

**Signal Word:** **Danger**

**Hazard Statements:**

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

| Hazard Number | Hazard Statement |
|---|---|
| H227 | Combustible liquid |
| H360 | May damage fertility or the unborn child |

**Precautionary Statements:**

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

**Prevention**

| Precautionary Number | Precautionary Statement |
|---|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P280 | Wear protective gloves and eye protection. |

**Response**

| Precautionary Number | Precautionary Statement |
|---|---|
| P308+P313 | If exposed or concerned: Get medical advice or attention. |
| P370+P378 | In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish. |

**Storage**

| Precautionary Number | Precautionary Statement |
|---|---|
| P403 | Store in a well-ventilated place. |
| P405 | Store locked up. |

**Disposal**

| Precautionary Number | Precautionary Statement |
|---|---|
| P501 | Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations. |

## 2.3. Hazards not Otherwise Classified

No other hazards identified.

## 2.4. Ingredients of Unknown Acute Toxicity

3.5 percent of this mixture consists of ingredient(s) of unknown acute dermal toxicity. 2 percent of this mixture consists of ingredient(s) of unknown acute inhalation toxicity.

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## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Mixture

| Chemical Name (IUPAC) | Common Name and Synonyms | CAS Number | Weight% |
|---|---|---|---|
| water | Water | 7732-18-5 | 96.45 |
| boric acid | Boric Acid; orthoboric acid; boracic acid | 10043-35-3 | 1.99 |
| ethanol | Ethyl Alcohol | 64-17-5 | 1.49 |
| methanol | Methyl Alcohol | 67-56-1 | < 0.1 |
| [7-(dimethylamino)phenothiazin-3-ylidene]-dimethylazanium chloride trihydrate | Methylene Blue Trihydrate | 7220-79-3 | < 0.1 |
| sodium 2-[[4-(dimethylamino)phenyl]diazenyl]benzoate | Methyl Red, Sodium Salt | 845-10-3 | < 0.1 |

## SECTION 4: First-Aid Measures

### 4.1. Description of Necessary First-Aid Measures

**Eye Contact:** May cause slight irritation.

**Ingestion:** Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** May cause slight irritation.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

May damage fertility or the unborn child Non-flammable, non-corrosive. Does not present any significant health hazards. Wash areas of contact with water. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

### 4.3. Immediate Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish. Use any means suitable for extinguishing surrounding fire.

### 5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Combustible liquid Not considered to be a fire or explosion hazard.

### 5.3. Special Protective Equipment and Precautions for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

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## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

### 6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.

## SECTION 7: Handling and Storage

### 7.1. Precautions for Safe Handling and Storage Conditions

Store in a well-ventilated place. Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Exposure Limits

**U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)**

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Ethyl Alcohol | 64-17-5 | 1000 ppm TWA; 1900 mg/m3 TWA |
| Methyl Alcohol | 67-56-1 | 200 ppm TWA; 260 mg/m3 TWA |

**U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits**

No limits found.

**U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)**

No limits found.

**U.S. OSHA - Specifically Regulated Chemicals**

No limits found.

**ACGIH - Threshold Limit Values - Ceilings (TLV-C)**

No limits found.

**ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)**

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Boric Acid | 10043-35-3 | 6 mg/m3 STEL (inhalable particulate matter, listed under Borate compounds, inorganic) |
| Ethyl Alcohol | 64-17-5 | 1000 ppm STEL |
| Methyl Alcohol | 67-56-1 | 250 ppm STEL |

**ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)**

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Boric Acid | 10043-35-3 | 2 mg/m3 TWA (inhalable particulate matter, listed under Borate compounds, inorganic) |
| Methyl Alcohol | 67-56-1 | 200 ppm TWA |

## 8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

## 8.3. Individual Protective Measures and Personal Protective Equipment

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Chemical resistant gloves.

**Eye Protection:** Safety glasses or goggles.

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## SECTION 9: Physical and Chemical Properties

### 9.1. Physical and Chemical Properties

| | |
|---|---|
| **Physical State:** | liquid |
| **Color:** | Dark blue |
| **Odor:** | Data not available. |
| **Odor Threshold:** | Data not available. |
| **Melting/Freezing Point:** | Approximately 0°C |
| **Boiling Point/Range:** | Approximately 100°C |
| **Flammability:** | Data not available. |
| **Flammability/Explosive Limits:** | Data not available. |
| **Flash Point:** | 81 °C (calculated) |
| **Auto-Ignition Temperature:** | Data not available. |
| **Decomposition Temperature:** | Data not available. |
| **pH:** | 4.5 - 5 |
| **Kinematic Viscosity:** | Data not available. |
| **Solubility:** | miscible |
| **Vapor Pressure:** | Data not available. |
| **Evaporation Rate:** | Data not available. |
| **Relative Density:** | 1.01 |
| **Relative Vapor Density:** | Data not available. |
| **Particle Characteristics:** | Data not available. |
| **Partition Coefficient n-octanol/water, log** | Data not available. |

NOTE: Flash point was calculated according to the method of Gmehling and Rasmussen (Ind. Eng. Chem. Fundament, 21, 186, (1982) ), as allowed by GHS Rev 7, section 2.6.4.2.3.

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

### 10.2. Possibility of Hazardous Reactions

Data not available.

### 10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Alkalies, Hydroxides.

### 10.4. Hazardous Decomposition Products

Will not occur.

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## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Boric Acid | 10043-35-3 | Oral LD50 Rat 2660 mg/kg (Source: JAPAN_GHS) |
| Ethyl Alcohol | 64-17-5 | Oral LD50 Rat 7060 mg/kg (Source: NLM_CIP) |
| Methyl Alcohol | 67-56-1 | Oral LD50 Acute Toxicity Estimate 100 mg/kg (Source: ECHA) |
| Methylene Blue Trihydrate | 7220-79-3 | Oral LD50 Rat 1180 mg/kg (Source: NLM_CIP) As Methylene Blue [61-73-4] |

**Acute Toxicity - Dermal Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Methyl Alcohol | 67-56-1 | Dermal LD50 Acute Toxicity Estimate 300 mg/kg (Source: ECHA) |

**Acute Toxicity - Inhalation Exposure:**

Inhalation acute toxicity estimate (ATE, vapor): 4285.7143 mg/L, 4 h(calculated)

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Ethyl Alcohol | 64-17-5 | Inhalation LC50 Rat 116.9 mg/L 4 h (males, vapor, Source: ECHA_API); Inhalation LC50 Rat 133.8 mg/L 4 h (females, vapor, Source: ECHA_API) |
| Methyl Alcohol | 67-56-1 | Inhalation LC50 Acute Toxicity Estimate 3 mg/L 4 h (Source: ECHA) |

### 11.2 Carcinogenicity:

**International Agency for Research on Cancer (IARC)**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| Methylene Blue Trihydrate | 7220-79-3 | Group 3 (Not Classified) - Monograph 108 [2016] (listed under Methylene blue) |

**National Toxicology Program (NTP)**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| Boric Acid | 10043-35-3 | Male Rat - Not Tested; Female Rat - Not Tested; Male Mice - No Evidence; Female Mice - No Evidence (TR-324) |
| Ethyl Alcohol | 64-17-5 | Male Rat - Not Tested; Female Rat - Not Tested; Male Mice - Inadequate Experiment; Female Mice - Inadequate Experiment (TR-510) |
| Methylene Blue Trihydrate | 7220-79-3 | Male Rat - Some Evidence; Female Rat - No Evidence; Male Mice - Some Evidence; Female Mice - Equivocal Evidence (TR-540) |

**U.S. OSHA specifically regulated carcinogens**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| | No data found. | |

### 11.3 Additional Toxicology Information:

May damage fertility or the unborn child.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

| Chemical Name | CAS Number | Species | Exposure | Toxicity |
|---|---|---|---|---|
| Boric Acid | 10043-35-3 | Avian | Dietary | LC50 5 Days Anas platyrhynchos >5620 ppm [Diet] (IUCLID); LC50 5 Days Colinus virginianus >5620 ppm [Diet] (IUCLID) |
| Ethyl Alcohol | 64-17-5 | Earthworm | Acute | LC50 48 h Eisenia foetida 0.1 - 1 mg/cm2 [filter paper] (IUCLID) |
| Methyl Alcohol | 67-56-1 | Earthworm | Acute | LC50 48 h Eisenia foetida >1 mg/cm2 [filter paper] (IUCLID) |
| Ethyl Alcohol | 64-17-5 | Freshwater Fish | Acute | LC50 96 h Oncorhynchus mykiss 12.0 - 16.0 mL/L [static] (EPA); LC50 96 h Pimephales promelas >100 mg/L [static] (EPA); LC50 96 h Pimephales promelas 13400 - 15100 mg/L [flow-through] (EPA) |
| Methyl Alcohol | 67-56-1 | Freshwater Fish | Acute | LC50 96 h Pimephales promelas 28200 mg/L [flow-through] (EPA); LC50 96 h Pimephales promelas >100 mg/L [static] (EPA); LC50 96 h Oncorhynchus mykiss 19500 - 20700 mg/L [flow-through] (EPA); LC50 96 h Oncorhynchus mykiss 18 - 20 mL/L [static] (EPA); LC50 96 h Lepomis macrochirus 13500 - 17600 mg/L [flow-through] (EPA) |
| Boric Acid | 10043-35-3 | Water Flea | Acute | EC50 48 h Daphnia magna 115 - 153 mg/L (EPA) |
| Ethyl Alcohol | 64-17-5 | Water Flea | Acute | LC50 48 h Daphnia magna 9268 - 14221 mg/L (IUCLID); EC50 48 h Daphnia magna 2 mg/L [Static] (EPA) |

### 12.2. Persistence and Degradability

Data not available.

### 12.3. Bioaccumulative Potential

Data not available.

### 12.4. Mobility in soil

Data not available.

### 12.5. Other Adverse Ecological Effects

Data not available.

## SECTION 13: Disposal Considerations

### 13.1. Waste Treatment Methods

Data not available.

## SECTION 14: Transportation Information

### 14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT regulations.

### 14.2 Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

### 14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG regulations.

## SECTION 15: Regulatory Information

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### 15.01. Occupational Safety and Health Administration (OSHA) Hazards

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| | | No data found. |

### 15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

| Chemical Name | CAS Number | RQ |
|---|---|---|
| | | No data found. |

### 15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Methyl Alcohol | 67-56-1 | 5000 lb final RQ; 2270 kg final RQ |

### 15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

| Chemical Name | CAS Number | List | Regulatory Information |
|---|---|---|---|
| Methyl Alcohol | 67-56-1 | Emission Reporting | 1.0 % de minimis concentration |

### 15.05. Massachusetts Right-to-Know Substance List

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Ethyl Alcohol | 64-17-5 | Teratogen |
| Methyl Alcohol | 67-56-1 | Present |

### 15.06. Pennsylvania Right-to-Know Hazardous Substances

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Ethyl Alcohol | 64-17-5 | Present |
| Methyl Alcohol | 67-56-1 | Environmental hazard |

### 15.07. New Jersey Worker and Community Right-to-Know Components

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Boric Acid | 10043-35-3 | "sn 0241" As Borate compounds, inorganic [RR-33876-1] |
| Ethyl Alcohol | 64-17-5 | sn 0844 |
| Methyl Alcohol | 67-56-1 | sn 1222 |

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### 15.08. California Proposition 65

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Ethyl Alcohol | 64-17-5 | "carcinogen, 7/1/1988 (when associated with alcohol abuse); carcinogen, 4/29/2011" As Alcoholic beverages [RR-01961-4] |
| Ethyl Alcohol | 64-17-5 | "developmental toxicity, 10/1/1987 (listed under Ethyl alcohol in alcoholic beverages)" As Alcoholic beverages [RR-01961-4] |
| Methyl Alcohol | 67-56-1 | developmental toxicity, 3/16/2012 |

### 15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Boric Acid | 10043-35-3 | DSL | Present |
| Ethyl Alcohol | 64-17-5 | DSL | Present |
| Ethyl Alcohol | 64-17-5 | NDSL | "Present" As Alcohols, C1-3 [68475-56-9] |
| Methyl Alcohol | 67-56-1 | DSL | Present |
| Methyl Alcohol | 67-56-1 | NDSL | "Present" As Alcohols, C1-3 [68475-56-9] |
| Methylene Blue Trihydrate | 7220-79-3 | DSL | "Present" As Phenothiazin-5-ium, 3,7-bis(dimethylamino)-, chloride [61-73-4] |
| Water | 7732-18-5 | DSL | Present |
| Methyl Red, Sodium Salt | 845-10-3 | DSL | Present |

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

| Chemical Name | CAS Number | Status |
|---|---|---|
| Boric Acid | 10043-35-3 | Present (ACTIVE) |
| Ethyl Alcohol | 64-17-5 | Present (ACTIVE) |
| Methyl Alcohol | 67-56-1 | Present (ACTIVE) |
| Methylene Blue Trihydrate | 7220-79-3 | "Present (ACTIVE)" As Phenothiazin-5-ium, 3,7-bis(dimethylamino)-, chloride (1:1) [61-73-4] |
| Water | 7732-18-5 | Present [XU] (ACTIVE) |
| Methyl Red, Sodium Salt | 845-10-3 | Present (ACTIVE) |

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

| Chemical Name | CAS Number | List | Number |
|---|---|---|---|
| Boric Acid | 10043-35-3 | EINECS | 233-139-2 |
| Ethyl Alcohol | 64-17-5 | EINECS | 200-578-6 |
| Methyl Alcohol | 67-56-1 | EINECS | 200-659-6 |
| Methylene Blue Trihydrate | 7220-79-3 | EINECS | "200-515-2" As Methylthioninium chloride [61-73-4] |
| Water | 7732-18-5 | EINECS | 231-791-2 |
| Methyl Red, Sodium Salt | 845-10-3 | EINECS | 212-682-9 |

### 15.12. China - Inventory of Existing chemical Substances (IECSC)

| Chemical Name | CAS Number | Status |
|---|---|---|
| Boric Acid | 10043-35-3 | Present [25550] |
| Ethyl Alcohol | 64-17-5 | Present [38125] |
| Methyl Alcohol | 67-56-1 | Present [16735] |
| Methylene Blue Trihydrate | 7220-79-3 | "Present [20899]" As Basic turquoise BB [61-73-4] |
| Water | 7732-18-5 | Present [32224] |
| Methyl Red, Sodium Salt | 845-10-3 | Present [08084] |

### 15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Boric Acid | 10043-35-3 | Annex 1 | Present [KE-03499] |
| Ethyl Alcohol | 64-17-5 | Annex 1 | Present [KE-13217] |
| Methyl Alcohol | 67-56-1 | Annex 1 | Present [KE-23193] |
| Methylene Blue Trihydrate | 7220-79-3 | Annex 1 | "Present [KE-06942]" As Methylene Blue [61-73-4] |
| Water | 7732-18-5 | Annex 1 | Present [KE-35400] |
| Methyl Red, Sodium Salt | 845-10-3 | Annex 1 | Present [KE-11175] |

### 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

| Chemical Name | CAS Number | MITI No. |
|---|---|---|
| Boric Acid | 10043-35-3 | (1)-63 |
| Ethyl Alcohol | 64-17-5 | (2)-202 |
| Methyl Alcohol | 67-56-1 | (2)-201 |
| Methylene Blue Trihydrate | 7220-79-3 | "(5)-1995" As 3,7-Bis(N,N-dimethylamino)phenothiazin-5-ium chloride [61-73-4] |
| Water | 7732-18-5 | - (listed on Japanese Pharmacopoeia 8th Edition) |

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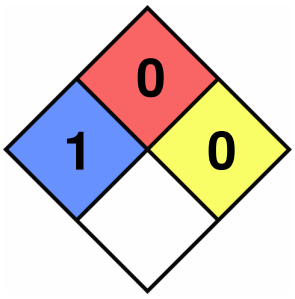
## SECTION 16: Other Information

### 16.1 National Fire Protection Associate (NFPA) Rating

| | |
|---|---|
| **Health:** | 1 |
| **Flammability:** | 0 |
| **Reactivity** | 0 |
| **Special Hazard:** | |




### 16.2 Document Revision

**Last Revision Date:**
2026-05-06

## DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.