



## Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation** Ethanol, 80% (v/v)

**Product Number** R2919800

**Other Identifying Product Numbers** R2919800-1A, R2919800-20F, R2919800-4A

#### 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

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### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture

| Hazard Class                        | Category    | Hazard Statements | Precautionary Statements                                                           |
|-------------------------------------|-------------|-------------------|------------------------------------------------------------------------------------|
| Flammable Liquids                   | Category 2  | H225              | P210,P233,P240,P241,P242,P243,<br>P280,P303+P361+P353,P370+P378,<br>P403+P235,P501 |
| Serious Eye Damage / Eye Irritation | Category 2B | H320              | P264,P305+P351+P338,P337+P313                                                      |

#### 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                  |
|---------------|-----------------------------------|
| H225          | Highly flammable liquid and vapor |
| H320          | Causes eye irritation             |

Precautionary Statements:

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



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## Prevention

| Precautionary Number | Precautionary Statement                                                                        |
|----------------------|------------------------------------------------------------------------------------------------|
| P210                 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233                 | Keep container tightly closed.                                                                 |
| P240                 | Ground and bond container and receiving equipment.                                             |
| P241                 | Use explosion-proof equipment.                                                                 |
| P242                 | Use non-sparking tools.                                                                        |
| P243                 | Take action to prevent static discharge.                                                       |
| P264                 | Wash hands, arms, and face thoroughly after handling.                                          |
| P280                 | Wear protective gloves and eye protection.                                                     |

## Response

| Precautionary Number | Precautionary Statement                                                                                                          |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P303+P361+P353       | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.                           |
| P305+P351+P338       | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337+P313            | If eye irritation persists: 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+P235            | Store in a well-ventilated place. Keep cool. |

## 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

73.4 percent of this mixture consists of ingredient(s) of unknown acute dermal 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% |
|-----------------------|--------------------------|------------|---------|
| ethanol               | Ethyl Alcohol            | 64-17-5    | 73.37   |
| water                 | Water                    | 7732-18-5  | 26.63   |

### SECTION 4: First-Aid Measures

#### 4.1. Description of Necessary Measures

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

**Ingestion:** Dilute immediately with water or milk. Induce vomiting. Call a physician.

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

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Results in drying and cracking which can lead to secondary infections and dermatitis.

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

DANGER! Flammable. Keep away from heat, sparks and open flames. Keep container closed. Use with adequate ventilation. Avoid prolonged breathing of vapor or contact with skin. Harmful if swallowed. Do not pipet by mouth. If ingested, induce vomiting until vomitus is clear. Call a physician. Wash areas of contact with plenty of water. For eyes, get medical attention. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: Results in drying and cracking which can lead to secondary infections and dermatitis.

#### 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. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute immediately with water or milk. Induce vomiting. Call a physician.

### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish. Use water spray, dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Water spray can be used to dilute spills to non-flammable mixtures.

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

Highly flammable liquid and vapor Vapors can flow along surfaces to distant ignition source and flashback. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire.

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## 5.3. Special Protective Equipment and Precautions for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## SECTION 6: Accidental Release Measures

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

Ground and bond container and receiving equipment. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharge. Wear protective gloves and eye protection.

### 6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. 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. Keep cool. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Exposure Limits

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### 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/m <sup>3</sup> 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 |
|---------------|------------|----------------|
| Ethyl Alcohol | 64-17-5    | 1000 ppm STEL  |

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

No limits found.

## 8.2. Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

## 8.3. Individual Protective Measures and Personal Protective Equipment

**Respiratory Protection:** Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

**Skin Protection:** Chemical resistant gloves.

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

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## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

|                                                   |                           |
|---------------------------------------------------|---------------------------|
| <b>Physical State:</b>                            | liquid                    |
| <b>Color:</b>                                     | Colorless                 |
| <b>Odor:</b>                                      | Characteristic alcohol    |
| <b>Odor Threshold:</b>                            | Data not available.       |
| <b>Melting/Freezing Point:</b>                    | -59°C                     |
| <b>Boiling Point/Range:</b>                       | 79°C                      |
| <b>Flammability:</b>                              | Data not available.       |
| <b>Flammability/Explosive Limits:</b>             | Data not available. - 19% |
| <b>Flash Point:</b>                               | 21 °C (calculated)        |
| <b>Auto-Ignition Temperature:</b>                 | Data not available.       |
| <b>Decomposition Temperature:</b>                 | Data not available.       |
| <b>pH:</b>                                        | Data not available.       |
| <b>Kinematic Viscosity:</b>                       | Data not available.       |
| <b>Solubility:</b>                                | Miscible                  |
| <b>Vapor Pressure:</b>                            | Data not available.       |
| <b>Evaporation Rate:</b>                          | Data not available.       |
| <b>Relative Density:</b>                          | 0.86                      |
| <b>Relative Vapor Density:</b>                    | Data not available.       |
| <b>Particle Characteristics:</b>                  | Data not available.       |
| <b>Partition Coefficient n-octanol/water, log</b> | 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. Keep container tightly closed. Oxidizers, Platinum, Sodium, Potassium Dioxide, Bromine Pentafluoride, Acetyl Bromide, Acetyl Chloride, heat, sparks, open flame.

### 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                                   |
|---------------|------------|--------------------------------------------|
| Ethyl Alcohol | 64-17-5    | Oral LD50 Rat 7060 mg/kg (Source: NLM_CIP) |

##### Acute Toxicity - Dermal Exposure:

No information found.

##### Acute Toxicity - Inhalation Exposure:

Not acutely toxic.

| 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) |

#### 11.2 Carcinogenicity:

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

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

##### National Toxicology Program (NTP)

| Chemical Name | CAS Number | Classification                                                                                                                  |
|---------------|------------|---------------------------------------------------------------------------------------------------------------------------------|
| Ethyl Alcohol | 64-17-5    | Male Rat - Not Tested; Female Rat - Not Tested; Male Mice - Inadequate Experiment; Female Mice - Inadequate Experiment (TR-510) |

##### U.S. OSHA specifically regulated carcinogens

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

#### 11.3 Additional Toxicology Information:

Causes eye irritation.

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### SECTION 12: Ecological Information

#### 12.1. Ecotoxicity

| Chemical Name | CAS Number | Species         | Exposure | Toxicity                                                                                                                                                                                     |
|---------------|------------|-----------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethyl Alcohol | 64-17-5    | Earthworm       | Acute    | LC50 48 h Eisenia foetida 0.1 - 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) |
| 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.

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## SECTION 14: Transportation Information

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

**Sizes:** 1 L, 4 L, 20 L

**UN Number:** UN1170

**Proper Shipping Name:** Ethanol Solutions

**Hazard Class:** 3

**Packing Group:** II

**Hazard Label(s):**



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

**Sizes:** 1 L, 4 L, 20 L

**UN Number:** UN1170

**Proper Shipping Name:** Ethanol Solution

**Hazard Class:** 3

**Packing Group:** II

**Hazard Label(s):**



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

**Sizes:** 1 L, 4 L, 20 L

**UN Number:** UN1170

**Proper Shipping Name:** ETHANOL SOLUTIONS

**Hazard Class:** 3

**Packing Group:** II

**Hazard Label(s):**



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### SECTION 15: Regulatory Information

#### 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 |
|----------------|------------|------------------------|
| No data found. |            |                        |

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

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

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

| Chemical Name | CAS Number | Regulatory Information |
|---------------|------------|------------------------|
| Ethyl Alcohol | 64-17-5    | Teratogen              |

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

| Chemical Name | CAS Number | Regulatory Information |
|---------------|------------|------------------------|
| Ethyl Alcohol | 64-17-5    | Present                |

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

| Chemical Name | CAS Number | Regulatory Information |
|---------------|------------|------------------------|
| Ethyl Alcohol | 64-17-5    | sn 0844                |

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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"<br>As Alcoholic beverages [RR-01961-4]      |
| Ethyl Alcohol | 64-17-5    | "developmental toxicity, 10/1/1987 (listed under Ethyl alcohol in alcoholic beverages)"<br>As Alcoholic beverages [RR-01961-4] |

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

| Chemical Name | CAS Number | List | Status                                   |
|---------------|------------|------|------------------------------------------|
| Ethyl Alcohol | 64-17-5    | DSL  | Present                                  |
| Ethyl Alcohol | 64-17-5    | NDSL | "Present" As Alcohols, C1-3 [68475-56-9] |
| Water         | 7732-18-5  | DSL  | Present                                  |

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

| Chemical Name | CAS Number | Status                |
|---------------|------------|-----------------------|
| Ethyl Alcohol | 64-17-5    | Present (ACTIVE)      |
| Water         | 7732-18-5  | Present [XU] (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    |
|---------------|------------|--------|-----------|
| Ethyl Alcohol | 64-17-5    | EINECS | 200-578-6 |
| Water         | 7732-18-5  | EINECS | 231-791-2 |

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

| Chemical Name | CAS Number | Status          |
|---------------|------------|-----------------|
| Ethyl Alcohol | 64-17-5    | Present [38125] |
| Water         | 7732-18-5  | Present [32224] |

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

| Chemical Name | CAS Number | List    | Status             |
|---------------|------------|---------|--------------------|
| Ethyl Alcohol | 64-17-5    | Annex 1 | Present [KE-13217] |
| Water         | 7732-18-5  | Annex 1 | Present [KE-35400] |

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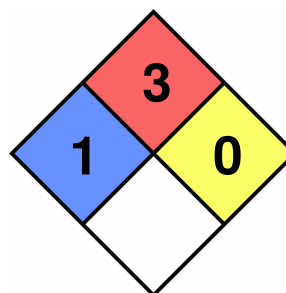
### 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

| Chemical Name | CAS Number | MITI No.                                         |
|---------------|------------|--------------------------------------------------|
| Ethyl Alcohol | 64-17-5    | (2)-202                                          |
| Water         | 7732-18-5  | - (listed on Japanese Pharmacopoeia 8th Edition) |

## SECTION 16: Other Information

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

**Health:** 1  
**Flammability:** 3  
**Reactivity:** 0  
**Special Hazard:**



### 16.2 Document Revision

**Last Revision Date:**  
 2026-05-24

## 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.