RICCA CHEMICAL COMPANY®

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation** Buffer, Reference Standard, pH 3.56 ± 0.01 at 25°C

**Product Number** 1498

**Other Identifying Product Numbers** 1498-1, 1498-16, 1498-2.5, 1498-32, 1498-5

### 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 |

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## SECTION 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture

This product is not categorized as hazardous in any GHS hazard class.

### 2.2. GHS Label Elements

**Pictograms:** None Required.

**Signal Word:** None Required.

**Hazard Statements:** None Required.

**Precautionary Statements:** None Required.

### 2.3. Hazards not Otherwise Classified

No other hazards identified.

### 2.4. Ingredients of Unknown Acute Toxicity

1 percent of this mixture consists of ingredient(s) of unknown acute dermal and inhalation toxicity.

## 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 | 98.96 |
| potassium 2-carboxybenzoate | Potassium Acid Phthalate; Potassium Hydrogen Phthalate; KHP | 877-24-7 | 1.02 |
| chlorane | Hydrochloric Acid; Muriatic acid | 7647-01-0 | < 0.1 |

## SECTION 4: First-Aid Measures

### 4.1. Description of Necessary 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

Wash areas of contact with water. Does not present any significant health hazards. 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

Use any means suitable for extinguishing surrounding fire (water or water spray). Neutralize with soda ash or slaked lime.

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

Not considered to be a fire or explosion hazard. May react with metals to release flammable Hydrogen gas.

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

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

## SECTION 6: Accidental Release Measures

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

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

### 6.2. Cleanup and Containment Methods and Materials

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always dispose of in accordance with local regulations.

## SECTION 7: Handling and Storage

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

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)

No limits found.

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

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | 5 ppm Ceiling; 7 mg/m3 Ceiling |

#### 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)

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | 2 ppm Ceiling |

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

No limits found.

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

No limits found.

### 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. Basic Physical and Chemical Properties

| | |
|---|---|
| **Physical State:** | liquid |
| **Color:** | Colorless |
| **Odor:** | Data not available. |
| **Odor Threshold:** | Data not available. |
| **Melting/Freezing Point:** | 0.0°C |
| **Boiling Point/Range:** | 100°C |
| **Flammability:** | Data not available. |
| **Flammability/Explosive Limits:** | Data not available. |
| **Flash Point:** | Not flammable |
| **Auto-Ignition Temperature:** | Data not available. |
| **Decomposition Temperature:** | Data not available. |
| **pH:** | 3.56 |
| **Kinematic Viscosity:** | Data not available. |
| **Solubility:** | miscible |
| **Vapor Pressure:** | Data not available. |
| **Evaporation Rate:** | Data not available. |
| **Relative Density:** | 1.0 |
| **Relative Vapor Density:** | Data not available. |
| **Particle Characteristics:** | Data not available. |
| **Partition Coefficient n-octanol/water, log** | Data not available. |

## 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

Most metals, Alkalis, active metals, Cyanides, Sulfides, Sulfites, Metal Oxides, Formaldehyde.

### 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 |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Oral LD50 Rat 700 mg/kg (Source: Canada_WHMIS) |
| Potassium Acid Phthalate | 877-24-7 | Oral LD50 Rat >3200 mg/kg (no deaths occurred, Source: ECHA) |

**Acute Toxicity - Dermal Exposure:**

No information found.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Dermal LD50 Rabbit >5010 mg/kg (Source: JAPAN_GHS) |

**Acute Toxicity - Inhalation Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Inhalation LC50 Acute Toxicity Estimate 0.5 mg/L 4 h (Source: ECHA) |

### 11.2 Carcinogenicity:

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

| Chemical Name | CAS Number | Classification |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Group 1 (Carcinogenic to Humans) - Monograph 100F [2012]; Monograph 54 [1992] As Acid mists, strong inorganic |

**National Toxicology Program (NTP)**

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

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

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

### 11.3 Additional Toxicology Information:

Data not available.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

| Chemical Name | CAS Number | Species | Exposure | Toxicity |
|---|---|---|---|---|
| | No data found. | None | None | |

### 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)

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.

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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 | TPQ |
|---|---|---|---|
| Hydrochloric Acid | 7647-01-0 | 500 lb TPQ (gas only) | 5000 lb EPCRA RQ (gas only) |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | 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 |
|---|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Emission Reporting | 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size) |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Extraordinarily hazardous |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Environmental hazard |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | sn 1012 |

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### 15.08. California Proposition 65

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

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

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Hydrochloric Acid | 7647-01-0 | DSL | Present |
| Water | 7732-18-5 | DSL | Present |
| Potassium Acid Phthalate | 877-24-7 | DSL | Present |

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

| Chemical Name | CAS Number | Status |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Present (ACTIVE) |
| Water | 7732-18-5 | Present [XU] (ACTIVE) |
| Potassium Acid Phthalate | 877-24-7 | 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 |
|---|---|---|---|
| Hydrochloric Acid | 7647-01-0 | EINECS | 231-595-7 |
| Water | 7732-18-5 | EINECS | 231-791-2 |
| Potassium Acid Phthalate | 877-24-7 | EINECS | 212-889-4 |

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

| Chemical Name | CAS Number | Status |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Present [37053] |
| Water | 7732-18-5 | Present [32224] |
| Potassium Acid Phthalate | 877-24-7 | Present [01706] |

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

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Hydrochloric Acid | 7647-01-0 | Annex 1 | Present [KE-20189] |
| Water | 7732-18-5 | Annex 1 | Present [KE-35400] |
| Potassium Acid Phthalate | 877-24-7 | Annex 1 | Present [KE-02310] |

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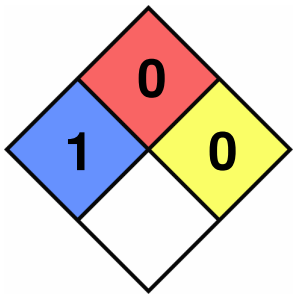
### 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

| Chemical Name | CAS Number | MITI No. |
|---|---|---|
| Hydrochloric Acid | 7647-01-0 | (1)-215 |
| Water | 7732-18-5 | - (listed on Japanese Pharmacopoeia 8th Edition) |
| Potassium Acid Phthalate | 877-24-7 | (3)-1272, (3)-1342 |

## 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:**
2026-05-07

## 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.