



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Tetrabutylammonium Hydrogen Sulfate, pH 4.8 Buffer, HPLC Mobile Phase

Product Number 8384.A

Other Identifying Product Numbers 8384.A-1, 8384.A-16, 8384.A-32, 8384.A-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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Serious Eye Damage / Eye Irritation	Category 2	H319	P264,P280,P305+P351+P338, P337+P313
Reproductive Toxicity	Category 1B	H360	P201,P202,P280,P308+P313,P405, P501
Specific Target Organ Toxicity - Single Exposure	Category 2	H371	P260,P264,P270,P308+P311, 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
H319	Causes serious eye irritation
H360	May damage fertility or the unborn child
H371	May cause damage to organs

Precautionary Statements:

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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

Prevention

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311	If exposed or concerned: Call a poison center or doctor.
P337+P313	If eye irritation persists: Get medical advice or attention.

Storage

Precautionary Number	Precautionary Statement
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

This product does not contain any ingredients of unknown acute toxicity.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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	87.43
propan-2-ol	Isopropyl Alcohol; 2-Propanol	67-63-0	8.08
methanol	Methyl Alcohol	67-56-1	3.39
hydrogen sulfate tetrabutylazanium	Tetrabutylammonium Hydrogen Sulfate	32503-27-8	0.74
trisodium phosphate	Trisodium Phosphate; Phosphoric acid, trisodium salt	7601-54-9	0.18
potassium dihydrogen phosphate	Potassium Dihydrogen Phosphate; Potassium Phosphate Monobasic; Phosphoric acid, potassium salt (1:1)	7778-77-0	0.17

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: Results in drying and cracking which can lead to secondary infections and dermatitis.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May damage fertility or the unborn child Contact may cause dryness and cracking of the skin. May cause irritation of the respiratory system.

Causes irritation to the eyes. Primarily toxic by ingestion. If ingested, give large quantity of water and induce vomiting. Call a physician. Wash areas of contact with water. 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

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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Vapors may explode if ignited in an enclosed area.

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 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 locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Keep away from heat, sparks and open flame. Use non-sparking equipment.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Chemical Name	CAS Number	Exposure Limit
Methyl Alcohol	67-56-1	200 ppm TWA; 260 mg/m ³ TWA
Isopropyl Alcohol	67-63-0	400 ppm TWA; 980 mg/m ³ 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
Methyl Alcohol	67-56-1	250 ppm STEL
Isopropyl Alcohol	67-63-0	400 ppm STEL

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

Chemical Name	CAS Number	Exposure Limit
Methyl Alcohol	67-56-1	200 ppm TWA
Isopropyl Alcohol	67-63-0	200 ppm TWA

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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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:	Approximately 0°C
Boiling Point/Range:	Approximately 90 - 100°C
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	33 °C (calculated)
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	4.8
Kinematic Viscosity:	Data not available.
Solubility:	miscible
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	0.95
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 Gmeling 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

Strong oxidizing agents such as Nitrates, Perchlorates or Sulfuric Acid, heat, sparks, open flame. Will attack some forms of plastics, rubber and coatings. May react with metallic aluminum and generate hydrogen gas.

10.4. Hazardous Decomposition Products

Will not occur.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 2691 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Tetrabutylammonium Hydrogen Sulfate	32503-27-8	Oral LD50 Acute Toxicity Estimate 500 mg/kg (Source: ThermoFisher)
Methyl Alcohol	67-56-1	Oral LD50 Acute Toxicity Estimate 100 mg/kg (Source: ECHA)
Isopropyl Alcohol	67-63-0	Oral LD50 Rat 4710 - 5840 mg/kg (Source: OECD_SIDS)
Trisodium Phosphate	7601-54-9	Oral LD50 Rat >2000 mg/kg (no deaths occurred, Source: ECHA)
Potassium Dihydrogen Phosphate	7778-77-0	Oral LD50 Rat 3200 mg/kg (Source: NLM_HSDB)

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)
Isopropyl Alcohol	67-63-0	Dermal LD50 Rat 12800 mg/kg (Source: Canada_WHMIS)
Trisodium Phosphate	7601-54-9	Dermal LD50 Rabbit >300 mg/kg (Source: NLM_CIP)

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 88.4956 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Methyl Alcohol	67-56-1	Inhalation LC50 Acute Toxicity Estimate 3 mg/L 4 h (Source: ECHA)
Isopropyl Alcohol	67-63-0	Inhalation LC50 Rat >10000 ppm 6 h (no deaths occurred, vapor, Source: ECHA_API)
Trisodium Phosphate	7601-54-9	Inhalation LC50 Rat >2.16 mg/L 1 h (dust, Source: IUCLID)
Potassium Dihydrogen Phosphate	7778-77-0	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Isopropyl Alcohol	67-63-0	Group 3 (Not Classified) - Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977]

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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:

Causes serious eye irritation. May damage fertility or the unborn child. May cause damage to organs.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Methyl Alcohol	67-56-1	Earthworm	Acute	LC50 48 h Eisenia foetida > 1 mg/cm ² [filter paper] (IUCLID)
Isopropyl Alcohol	67-63-0	Freshwater Algae	Acute	EC50 96 h Desmodesmus subspicatus > 1000 mg/L (IUCLID); EC50 72 h Desmodesmus subspicatus > 1000 mg/L (IUCLID)
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)
Isopropyl Alcohol	67-63-0	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 9640 mg/L [flow-through] (IUCLID); LC50 96 h Pimephales promelas 11130 mg/L [static] (IUCLID); LC50 96 h Lepomis macrochirus > 1400000 µg/L (EPA)
Isopropyl Alcohol	67-63-0	Water Flea	Acute	EC50 48 h Daphnia magna 13299 mg/L (IUCLID)

12.2. Persistence and Degradability

Data not available.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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.



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG regulations.

SECTION 15: Regulatory Information

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
Trisodium Phosphate	7601-54-9	5000 lb final RQ (listed under Sodium phosphate, tribasic); 2270 kg final RQ (listed under Sodium phosphate, tribasic)

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
Isopropyl Alcohol	67-63-0	Emission Reporting	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Methyl Alcohol	67-56-1	Present
Isopropyl Alcohol	67-63-0	Present
Trisodium Phosphate	7601-54-9	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Methyl Alcohol	67-56-1	Environmental hazard
Isopropyl Alcohol	67-63-0	Environmental hazard
Trisodium Phosphate	7601-54-9	Environmental hazard

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Chemical Name	CAS Number	Regulatory Information
Methyl Alcohol	67-56-1	sn 1222
Isopropyl Alcohol	67-63-0	sn 1076
Trisodium Phosphate	7601-54-9	sn 1724

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
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
Tetrabutylammonium Hydrogen Sulfate	32503-27-8	DSL	Present
Methyl Alcohol	67-56-1	DSL	Present
Methyl Alcohol	67-56-1	NDSL	"Present" As Alcohols, C1-3 [68475-56-9]
Isopropyl Alcohol	67-63-0	DSL	Present
Isopropyl Alcohol	67-63-0	NDSL	"Present" As Alcohols, C1-3 [68475-56-9]
Trisodium Phosphate	7601-54-9	DSL	Present
Water	7732-18-5	DSL	Present
Potassium Dihydrogen Phosphate	7778-77-0	DSL	Present

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

Chemical Name	CAS Number	Status
Tetrabutylammonium Hydrogen Sulfate	32503-27-8	Present (ACTIVE)
Methyl Alcohol	67-56-1	Present (ACTIVE)
Isopropyl Alcohol	67-63-0	Present (ACTIVE)
Trisodium Phosphate	7601-54-9	Present (ACTIVE)
Water	7732-18-5	Present [XU] (ACTIVE)
Potassium Dihydrogen Phosphate	7778-77-0	Present (ACTIVE)

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
Tetrabutylammonium Hydrogen Sulfate	32503-27-8	EINECS	251-068-5
Methyl Alcohol	67-56-1	EINECS	200-659-6
Isopropyl Alcohol	67-63-0	EINECS	200-661-7
Trisodium Phosphate	7601-54-9	EINECS	231-509-8
Water	7732-18-5	EINECS	231-791-2
Potassium Dihydrogen Phosphate	7778-77-0	EINECS	231-913-4

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

Chemical Name	CAS Number	Status
Tetrabutylammonium Hydrogen Sulfate	32503-27-8	Present [32501]
Methyl Alcohol	67-56-1	Present [16735]
Isopropyl Alcohol	67-63-0	Present [40403]
Trisodium Phosphate	7601-54-9	Present [22551]
Water	7732-18-5	Present [32224]
Potassium Dihydrogen Phosphate	7778-77-0	Present [22414]

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

Chemical Name	CAS Number	List	Status
Tetrabutylammonium Hydrogen Sulfate	32503-27-8	Annex 1	Present [KE-34030]
Methyl Alcohol	67-56-1	Annex 1	Present [KE-23193]
Isopropyl Alcohol	67-63-0	Annex 1	Present [KE-29363]
Trisodium Phosphate	7601-54-9	Annex 1	Present [KE-34912]
Water	7732-18-5	Annex 1	Present [KE-35400]
Potassium Dihydrogen Phosphate	7778-77-0	Annex 1	Present [KE-28622]

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

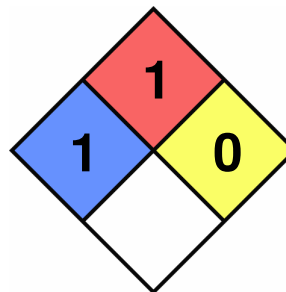
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Tetrabutylammonium Hydrogen Sulfate	32503-27-8	(1)-430, (2)-186 (not considered as a new chemical substance)
Methyl Alcohol	67-56-1	(2)-201
Isopropyl Alcohol	67-63-0	(2)-207
Trisodium Phosphate	7601-54-9	(1)-497
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)
Potassium Dihydrogen Phosphate	7778-77-0	(1)-452

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

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



16.2 Document Revision

Last Revision Date:
 2026-05-23

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.