



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation 5 mM Sodium Phosphate, 5%v/v Acetonitrile, pH 3.00

Product Number R5181400

Other Identifying Product Numbers R5181400-1C

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 3	H226	P210,P233,P240,P241,P242,P243, P280,P303+P361+P353,P370+P378, P403+P235,P501

2.2. GHS Label Elements

Pictograms:



Signal Word: **Warning**

Hazard Statements:

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

Hazard Number	Hazard Statement
H226	Flammable liquid and vapor

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.
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.
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

This product does not contain any ingredients of unknown acute 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	95.95
acetonitrile	Acetonitrile; Methyl cyanide	75-05-8	3.98
sodium dihydrogenphosphate monohydrate	Sodium Phosphate, Monobasic Monohydrate	10049-21-5	< 0.1

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SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: May cause slight irritation.

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. May cause irritation, allergic reaction and rash.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Avoid contact with skin. Harmful if swallowed. Do not pipet by mouth. If ingested, give a large quantity of water and induce vomiting. May cause cyanide poisoning. Call a physician. Wash areas of contact with plenty of water. For eyes, get medical attention. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause irritation, allergic reaction and rash.

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 immediately with water or milk. Induce vomiting. Call a physician. Available Cyanide antidotes are Hydroxocobalamin, Sodium Nitrite and Sodium Thiosulfate administered via intravenous (IV) infusion by qualified healthcare professionals.

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

Flammable liquid and vapor 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.

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

Absorb with suitable material (paper towels, etc.) and treat as normal refuse if local regulations allow. Liquid may be flushed to the sewer. Always dispose of in accordance with local, state and federal regulations.

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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.

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
Acetonitrile	75-05-8	40 ppm TWA; 70 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)

No limits found.

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

Chemical Name	CAS Number	Exposure Limit
Acetonitrile	75-05-8	20 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.

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Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State: Liquid

Color: Clear, colorless

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: 41 °C (calculated)

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

pH: 3.00

Kinematic Viscosity: Data not available.

Solubility: Miscible

Vapor Pressure: Data not available.

Evaporation Rate: Data not available.

Relative Density: 0.99

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.

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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. Strong Oxidizing agents, strong acids, strong bases.

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	Oral LD50 Rat 8290 mg/kg (Source: NLM_CIP) As Sodium dihydrogen phosphate (1:2:1) [7558-80-7]
Acetonitrile	75-05-8	Oral LD50 Mouse 617 mg/kg (Source: ECHA_API)

Acute Toxicity - Dermal Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	Dermal LD50 Rabbit >7940 mg/kg (Source: IUCLID) As Sodium dihydrogen phosphate (1:2:1) [7558-80-7]
Acetonitrile	75-05-8	Dermal LD50 Acute Toxicity Estimate 1100 mg/kg (Source: Canada_WHMIS)

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 75.3769 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API) As Sodium dihydrogen phosphate (1:2:1) [7558-80-7]
Acetonitrile	75-05-8	Inhalation LC50 Acute Toxicity Estimate 3 mg/L 4 h (Canada_WHMIS)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
		No data found.

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National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Acetonitrile	75-05-8	Male Rat - Equivocal Evidence; Female Rat - No Evidence; Male Mice - No Evidence; Female Mice - No Evidence (TR-447)

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
Acetonitrile	75-05-8	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 1600 - 1690 mg/L [flow-through] (EPA); LC50 96 h Pimephales promelas 1000 mg/L [static] (EPA); LC50 96 h Lepomis macrochirus 1850 mg/L [static] (EPA); LC50 96 h Poecilia reticulata 1650 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.

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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.



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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
Acetonitrile	75-05-8	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
Acetonitrile	75-05-8	Emission Reporting	1.0 % de minimis concentration

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Acetonitrile	75-05-8	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Acetonitrile	75-05-8	Environmental hazard

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

Chemical Name	CAS Number	Regulatory Information
Acetonitrile	75-05-8	sn 0008

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
No data found.		

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

Chemical Name	CAS Number	List	Status
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	DSL	"Present" As Sodium acid phosphate [7558-80-7]; "Present" As Sodium phosphate [7632-05-5]
Acetonitrile	75-05-8	DSL	Present
Water	7732-18-5	DSL	Present

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

Chemical Name	CAS Number	Status
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	"Present (ACTIVE)" As Phosphoric acid, sodium salt (1:1) [7558-80-7]; "Present (ACTIVE)" As Phosphoric acid, sodium salt (1:?) [7632-05-5]
Acetonitrile	75-05-8	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
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	EINECS	"231-449-2" As Sodium dihydrogenorthophosphate [7558-80-7]; "231-558-5" As Phosphoric acid, sodium salt [7632-05-5]
Acetonitrile	75-05-8	EINECS	200-835-2
Water	7732-18-5	EINECS	231-791-2

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

Chemical Name	CAS Number	Status
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	Present [22419]
Acetonitrile	75-05-8	Present [39036]
Water	7732-18-5	Present [32224]

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

Chemical Name	CAS Number	List	Status
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	Annex 1	"Present [KE-31577]" As Sodium acid phosphate [7558-80-7]; "Present [KE-28642]" As Sodium phosphate [7632-05-5]
Acetonitrile	75-05-8	Annex 1	Present [KE-00067]
Water	7732-18-5	Annex 1	Present [KE-35400]

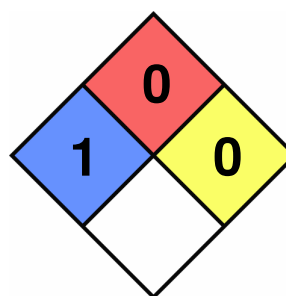
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Sodium Phosphate, Monobasic Monohydrate	10049-21-5	(1)-497
Acetonitrile	75-05-8	(2)-1508
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: 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.