

Classified According to OSHA Hazard Communication Standard (HCS)

# **SECTION 1: Identification**

#### **1.1. Product Identifier**

Trade Name or Designation:

Acetonitrile, HPLC Grade

Product Number: RSOA0020

Other Identifying Product Numbers: RSOA0020-1C, RSOA0020-4C, RSOA0020-4x4C

# 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: 448 West Fork Drive

Arlington, TX 76012 USA **Telephone:** 888-467-4222

# 1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) 800-4 CHEMTREC (International) 1+ 70

800-424-9300 1+ 703-527-3887

# **Safety Data Sheet**

# SECTION 2: Hazard(s) Identification

# 2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

|   |             | Hazard     |   |
|---|-------------|------------|---|
| Hazard Class  | Category    | Statements | Precautionary Statements:                 |
| Acute Toxicity - Oral                                       | Category 2  | H300       | P264, P270, P301+P310, P321, P330, P405,  |
|   |             |            | P501                                      |
| Acute Toxicity - Dermal                                     | Category 3  | H311       | P280, P302+P352, P312, P321, P361, P405,  |
|   |             |            | P501                                      |
| Acute Toxicity - Inhalation                                 | Category 3  | H331       | P261, P271, P304+P340, P311, P321,        |
|   |             |            | P403+P233, P405, P501                     |
| Eye Damage / Irritation                                     | Category 2A | H319       | P264, P280, P305+P351+P338, P337+P313     |
| Germ Cell Mutagenicity                                      | Category 2  | H341       | P201, P202, P280, P308+P313, P405, P501   |
| Specific Target Organs/Systemic Toxicity Following Single   | Category 1  | H370       | P260, P264, P270, P307+P311, P321, P405,  |
| Exposure  |             |            | P501                                      |
| Specific Target Organs/Systemic Toxicity Following Repeated | Category 2  | H373       | P260, P314, P501                          |
| Exposure  |             |            |   |
| Flammable Liquids   | Category 2  | H225       | P210, P233, P240, P241, P242, P243, P280, |
|   |             |            | P303+P361+P353, P370+P378, P403+P235,     |
|   |             |            | P501                                      |

# 2.2. GHS Label Elements



Signal Word: Danger

#### Hazard Statements:

| Hazard Number | Hazard Statement   |
|---------------|--|
| H225          | Highly flammable liquid and vapor.                                 |
| H300          | Fatal if swallowed.  |
| H311          | Toxic in contact with skin.  |
| H319          | Causes serious eye irritation.                                     |
| H331          | Toxic if inhaled.  |
| H341          | Suspected of causing genetic defects.                              |
| H370          | Causes damage to organs.   |
| H373          | May cause damage to organs through prolonged or repeated exposure. |

# **Safety Data Sheet**

#### **Precautionary Statements:**

| 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, sparks and open flame. No smoking.  |
| P233                 | Keep container tightly closed.   |
| P240                 | Ground container and receiving equipment.  |
| P241                 | Use explosion-proof equipment.   |
| P242                 | Use only non-sparking tools.   |
| P243                 | Take precautionary measures against static discharge.  |
| P260                 | Do not breathe fumes, mist, vapors, or spray.  |
| P261                 | Avoid breathing fumes, mist, vapors, or spray.   |
| P264                 | Wash arms, hands and face thoroughly after handling.   |
| P270                 | Do not eat, drink or smoke when using this product.  |
| P271                 | Use only outdoors or in a well-ventilated area.  |
| P280                 | Wear protective gloves and eye protection.   |
| P301+P310            | IF SWALLOWED: Immediately call a POISON CENTER or physician.   |
| P302+P352            | IF ON SKIN: Wash with plenty of soap and water.  |
| P303+P361+P353       | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.               |
| P304+P340            | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                 |
| P305+P351+P338       | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to |
| P307+P311            | IF exposed: Call a POISON CENTER or physician.   |
| P308+P313            | IF exposed or concerned: Get medical attention.  |
| P311                 | Call a POISON CENTER or physician.   |
| P312                 | Call a POISON CENTER or physician if you feel unwell.  |
| P314                 | Get medical attention if you feel unwell.  |
| P321                 | Specific treatment (Wash areas of contact with water).   |
| P330                 | Rinse mouth.   |
| P337+P313            | If eye irritation persists: Get medical attention.   |
| P361                 | Take off immediately all contaminated clothing and wash it before reuse.                                   |
| P370+P378            | In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.                                   |
| P403+P233            | Store in a well-ventilated place. Keep container tightly closed.   |
| P403+P235            | Store in a well-ventilated place. Keep cool.   |
| P405                 | Store locked up.   |
| P501                 | Dispose of contents in accordance with local, state, federal and international regulations.                |

# 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

RICCA CHEMICAL COMPANY<sup>®</sup>

# Safety Data Sheet

# **SECTION 3: Composition / Information on Ingredients**

## 3.1. Components of Substance or Mixture

| Chemical Name | Formula | Molecular Weight CAS Number | Weight% |
|---------------|---------|-----------------------------|---------|
| Acetonitrile  | CH₃CN   | 41.05 g/mol 75-05-8         | 100.00  |

## **SECTION 4: First-Aid Measures**

#### 4.1. General First Aid Information

- 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.
- Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May result in irritating rash. May be absorbed through the skin with effects similar to those of inhalation.
  - **Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or physician. Dilute immediately with water or milk. Break Amyl Nitrite ampule in cloth and hold tightly under nose for 15 seconds, repeat 2 to 6 times at 15 second intervals. Induce vomiting. Call a physician.

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

Fatal if swallowed. Toxic in contact with skin. Causes serious eye irritation. Toxic if inhaled. Suspected of causing genetic defects. Causes damage to organs. May cause damage to organs through prolonged or repeated exposure. Flammable liquid. May be fatal if swallowed, inhaled or absorbed through the skin. Forms Cyanide in the body. If ingested, give large quantity of water and induce vomiting. Call a physician immediately. Keep fresh 0.3 mL Amyl Nitrite ampules with instructions on hand. Contact may cause irritation to the skin, eyes and respiratory tract. Wash areas of contact with water. It is excreted in the urine as Cyanide. Acetonitrile metabolizes into Cyanide over 2 to 8 hours, so symptoms or signs of toxicity may be delayed after significant exposure. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: May result in irritating rash. May be absorbed through the skin with effects similar to those of inha

# 4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

# **SECTION 5: Fire-Fighting Measures**

#### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Use dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Use water as fog in flooding quantities.

# 5.2. Specific Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapor. Flammable liquid. Vapors are heavier than air and may travel to a source of ignition and flash back. Combustion by-products include hydrogen cyanide and oxides of nitrogen.

# 5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and positive pressure self-contained breathing apparatus. Butyl rubber barrier recommended.

# **Safety Data Sheet**

# **SECTION 6: Accidental Release Measures**

# 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection.

## 6.2. Cleanup and Containment Methods and Materials

Eliminate all ignition sources. Approach release from upwind. Stop or control the leak, if this can be done without undue risk. Use water spray to cool and disperse vapors, protect personnel, and dilute spills to form nonflammable mixtures. Control runoff and isolate discharged material for proper disposal.

# **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. 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 Control Parameters**

| Chemical Name          | Limit Type | Count | ry Exposure Limit                    | Information Source   |
|------------------------|------------|-------|--------------------------------------|--|
| Acetonitrile (75-05-8) | TWA        | USA   | 40 ppm TWA; 70 mg/m <sup>3</sup> TWA | U.S OSHA - Final PELs - Time Weighted<br>Averages (TWAs)             |
| Acetonitrile (75-05-8) | TLV-TWA    | USA   | 20 ppm TWA                           | ACGIH - Threshold Limit Values - Time<br>Weighted Averages (TLV-TWA) |
| Acetonitrile (75-05-8) | TWA        | USA   | 5 mg/m³ TWA (as CN)                  | U.S OSHA - Final PELs - Time Weighted<br>Averages (TWAs)             |

# 8.2. Exposure Controls

**Engineering Controls:** Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

- **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: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

# 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn. Chemical resistant gloves. Safety glasses or goggles.

# **Safety Data Sheet**

# **SECTION 9: Physical and Chemical Properties**

# 9.1. Basic Physical and Chemical Properties

| Appearance:                    | Colorless liquid    |
|--------------------------------|---------------------|
| Physical State:                | Liquid              |
| Odor:                          | Data not available. |
| Odor Threshold:                | Data not available. |
| pH:                            | Data not available. |
| Melting/Freezing Point:        | Data not available. |
| Initial Boiling Point/Range:   | Data not available. |
| Flash Point:                   | Data not available. |
| Evaporation Rate:              | Data not available. |
| Flammability:                  | Data not available. |
| Flammability/Explosive Limits: | Data not available. |
| Vapor Pressure:                | Data not available. |
| Vapor Density:                 | Data not available. |
| Relative Density:              | 0.79                |
| Solubility:                    | Miscible            |
| Partition Coefficient:         | Data not available. |
| Auto-Ignition Temperature:     | Data not available. |
| Decomposition Temperature:     | Data not available. |
|                                | Data not available. |
| Explosive Properties:          | Data not available. |
| Oxidizing Properties:          | Data not available. |

# **SECTION 10: Stability and Reactivity**

# 10.1. Reactivity and Chemical Stability

Data not available.

#### **10.2. Possibility of Hazardous Reactions**

Data not available.

# 10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Oxidizing material, Sulfuric Acid, Perchlorates, nitrating agents, oleum, heat, sparks, open flame.

#### **10.4. Hazardous Decomposition Products**

Will not occur.

# **Safety Data Sheet**

# **SECTION 11: Toxicological Information**

# 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Fatal if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Rinse mouth. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Acute Toxicity - Dermal Exposure:

Toxic in contact with skin. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Specific treatment (Wash areas of contact with water). Take off immediately all contaminated clothing and wash it before reuse. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Acute Toxicity - Inhalation Exposure:

Toxic if inhaled. Avoid breathing fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: 2460 mg/kg; LD50, Dermal, Rabbit: 1250 µg/kg, details of toxic effects not reported other than lethal dose value. LC50, Inhalation, Rabbit: 2828 ppm/4H, behavioral and blood effects noted.

#### Skin Corrosion and Irritation:

Not applicable.

#### Serious Eye Damage and Irritation:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

#### **Respiratory Sensitization:**

Not applicable.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Carcinogenicity:

Not applicable.

#### **Reproductive Toxicity:**

Not applicable.

#### Specific Target Organ Toxicity from Single Exposure:

Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.



#### Specific Target Organ Toxicity from Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

#### **Aspiration Hazard:**

Not applicable.

#### Additional Toxicology Information:

Data not available.

# **SECTION 12: Ecological Information**

#### 12.1. Ecotoxicity

Not applicable.

## 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)

Sizes: 1 L, 4 L, 16 L

UN Number: UN1648

Proper Shipping Name: Acetonitrile

Hazard Class: 3

Packing Group:

Hazard Label(s):





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

**Sizes:** 1 L, 4 L, 16 L UN Number: UN1648 Proper Shipping Name: Acetonitrile Hazard Class: 3 Packing Group: Hazard Label(s): LAMMABLE

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

**Sizes:** 1 L, 4 L, 16 L UN Number: UN1648 Proper Shipping Name: ACETONITRILE Hazard Class: 3 Packing Group: Hazard Label(s): FLAMMABLI

# **SECTION 15: Regulatory Information**

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

Not listed.

# 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances Not listed.

# 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals Acetonitrile (CAS # 75-05-8): 5000 lb final RQ; 2270 kg final RQ

# 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Acetonitrile (CAS # 75-05-8): 1.0 % de minimis concentration Acetonitrile (CAS # 75-05-8): 1.0 % de minimis concentration (X+CN- where X = H+ or any other group where a formal dissociation can be made. For example KCN or Ca(CN)2. Chemical Category N106)

15.5. Massachusetts Right-to-Know Substance List

Acetonitrile (CAS # 75-05-8): Present



Acetonitrile (CAS # 75-05-8): Present **15.7. New Jersey Worker and Community Right-to-Know Components** Acetonitrile (CAS # 75-05-8): flammable - third degree Acetonitrile (CAS # 75-05-8): sn 0008 Acetonitrile (CAS # 75-05-8): SN 0008 500 lb TPQ Acetonitrile (CAS # 75-05-8): sn 2308 Acetonitrile (CAS # 75-05-8): SN 2308 500 lb TPQ (Category Code N106) **15.8. California Proposition 65** Not listed. **15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)** 

15.6. Pennsylvania Right-to-Know Hazardous Substances

Acetonitrile (CAS # 75-05-8): Present (DSL)

Acetonitrile (CAS # 75-05-8): Environmental hazard

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

Acetonitrile (CAS # 75-05-8): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European

# List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Acetonitrile (CAS # 75-05-8): 200-835-2 Acetonitrile (CAS # 75-05-8): 218-616-5

# **SECTION 16: Other Information**

# 16.1. Full Text of Hazard Statements and Precautionary Statements

Highly flammable liquid and vapor. Fatal if swallowed. Toxic in contact with skin. Causes serious eye irritation. Toxic if inhaled. Suspected of causing genetic defects. Causes damage to organs. May cause damage to organs through prolonged or repeated exposure.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks and open flame. No smoking. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye protection.

IF SWALLOWED: Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). Rinse mouth. If eye irritation persists: Get medical attention. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.



## 16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable. Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable. Health Hazards Not Otherwise Classified (HHNOC): Not Applicable. Biohazardous Infectious Materials Hazard Class: Not Applicable.

## 16.3. National Fire Protection Association (NFPA) Rating

| Health:         | 2 |
|-----------------|---|
| Flammability:   | 3 |
| Reactivity:     | 0 |
| Special Hazard: |   |



## 16.4. Document Revision

Last Revision Date: 2020-05-31

# 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.