

## Acetonitrile, HPLC

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Acetonitrile, HPLC

**Synonyms/Generic Names:** Methyl Cyanide

**Product Number:** 0164

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC – 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Hazard Not Otherwise Classified (HNOC):** None

**Signal Words:** Danger

**Pictograms**



**GHS Classification:**

Flammable liquids	Category 2
Acute toxicity, Dermal	Category 4
Acute toxicity, Oral	Category 4
Acute toxicity, Inhalation	Category 4
Skin corrosion	Category 2
Serious eye damage	Category 2A

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H225	Highly flammable liquid and vapor.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H316	Causes mild skin irritation.
H318	Causes serious eye damage.

**Precautionary Statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing fume/gas/mist/vapors/spray.
P270	Do not eat, drink or smoke when using this product.
P271	Use only in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of 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 do so. Continue rinsing.
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

**Potential Health Effects**

<b>Eyes</b>	Causes irritation.
<b>Inhalation</b>	Can cause irritation of mucous membranes and central nervous system depression.
<b>Skin</b>	Contact may cause irritation. May be harmful if absorbed through skin.
<b>Ingestion</b>	May be harmful if swallowed. May cause blindness and central nervous system depression.

**NFPA Ratings**

<b>Health</b>	2
<b>Flammability</b>	3
<b>Reactivity</b>	0
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	2
<b>Fire</b>	3
<b>Reactivity</b>	1

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Acetonitrile	>99	75-05-8	200-835-2	CH <sub>3</sub> CN	41.05 g/mol

**4. FIRST-AID MEASURES**

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

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## 5. FIREFIGHTING MEASURES

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<b>Suitable (and unsuitable) extinguishing media</b>	Flammable liquid. Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Use appropriate media on adjacent fires. Cool containers with water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (oxides of nitrogen and carbon) under fire conditions. (See also Stability and Reactivity section). Vapors can travel to a source of ignition and flash back. Containers may explode in a fire. Cool containers from a distance using water spray. SENSITIVE TO STATIC DISCHARGE.

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources. Absorb spill with noncombustible absorbent material, then sweep up and place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste or cleanup materials in accordance with local regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Store in tightly closed container. Store between 55-100°F for product stability. Do not store with strong oxidizing agents. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Occupational exposure controls:** Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Acetonitrile	70 mg/m <sup>3</sup>	PEL	OSHA
	34 mg/m <sup>3</sup>	TLV	ACGIH
	340 mg/m <sup>3</sup>	REL	NIOSH
	500 ppm	IDLH	OSHA

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles with face shield if splashing is likely to occur.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, flame retardant antistatic clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid.
Odor	Pungent.
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-46°C (-50°F)
Initial boiling point and boiling range	82°C (179°F)
Flash point	6°C (42°F)
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	Upper: 16% Lower: 4.4%
Vapor pressure	73 mmHg
Vapor density	2.0 (air = 1)
Relative density	0.7380 (water = 1)
Solubility (ies)	Completely soluble in water.
Partition coefficient: n-octanol/water	Log Pow: -0.34
Auto-ignition temperature	524°C (975°F)
Decomposition temperature	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Keep away from heat, flame and sparks. Vapors may form explosive mixture with air.
<b>Incompatible Materials</b>	Acids, bases, oxidizing agents, reducing agents, alkali metals
<b>Hazardous Decomposition Products</b>	Carbon oxides, nitrogen oxides

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Skin</b>	LD50 Dermal- rabbit- 2,000 mg/kg
<b>Eyes</b>	Eyes – rabbit – severe eye irritation.

<b>Respiratory</b>	LC50 Inhalation- rat- 8 h- 7551 ppm
<b>Ingestion</b>	LD50 Oral- rat- 2,460 mg/kg

**Carcinogenicity**

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Signs & Symptoms of Exposure**

<b>Skin</b>	Burning, itching, redness.
<b>Eyes</b>	Redness, excessive blinking and watering eyes.
<b>Respiratory</b>	Coughing, wheezing, headache, disorientation, blurred vision, dizziness, fatigue or nausea.
<b>Ingestion</b>	Nausea, vomiting

<b>Chronic Toxicity</b>	Not Available
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Target Organ(s)</b>	Blood, Liver, Kidney, Respiratory System, Central Nervous System
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity**

<b>Aquatic Vertebrate</b>	LC50- Pimephales promelas (fathead minnow)- 1,640 mg/l- 96 h
<b>Aquatic Invertebrate</b>	EC50- Daphnia magna (water flea)- 3,600 mg/l- 48 h NOEC- Daphnia magna (water flea)- 640 mg/l- 14 days
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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**13. DISPOSAL CONSIDERATIONS**

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<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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**14. TRANSPORTATION INFORMATION**

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US DOT	UN1648, Acetonitrile, 3, pg II
TDG	UN1648, ACETONITRILE, 3, PG II
IMDG	UN1648, ACETONITRILE, 3, PG II
Marine Pollutant	No
IATA/ICAO	UN1648, Acetonitrile, 3, pg II

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**15. REGULATORY INFORMATION**

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TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Rhode Island: Hazardous Substance List	Listed: Acetonitrile
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Not Listed
Pennsylvania: Hazardous Substance List	Listed: Acetonitrile
New Jersey: Right to Know Hazardous Substance List	Listed: Acetonitrile
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Fire Hazard, Acute Health Hazard.
SARA 312	Fire Hazard, Acute Health Hazard.
SARA 313	Listed: Acetonitrile
WHMIS Canada	Class B2: Flammable and combustible material – Flammable liquid. Class D1A: Poisonous and infectious material – Immediate and serious effects – Very toxic. Class D2B: Poisonous and infectious material – Other effects – Toxic.

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**16. OTHER INFORMATION**

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Revision	Date
Original	07/07/2011
Revision 1	07/06/2012
Revision 2	04/22/2014
Revision 3	05/11/2015
Revision 4	04/24/2018
Revision 5	06/13/2022

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