

Safety Data Sheet

Acetonitrile, ACS

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Acetonitrile, ACS

Synonyms/Generic Names: Methyl Cyanide

Product Number: 0155

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

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

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

NFPA Ratings

Health	2
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	3
Reactivity	1

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

4. FIRST-AID MEASURES

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

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	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.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	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.

7. HANDLING AND STORAGE

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).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Acetonitrile	70 mg/m ³	PEL	OSHA
	34 mg/m ³	TLV	ACGIH
	340 mg/m ³	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

Eyes	Wear chemical safety glasses or goggles with face shield if splashing is likely to occur.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	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.
Other	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

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

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

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

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

Carcinogenicity

IARC	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.
ACGIH	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.
NTP	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.
OSHA	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

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

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

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

13. DISPOSAL CONSIDERATIONS

Waste Product or Residues	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.
Product Containers	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.

14. TRANSPORTATION INFORMATION

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

15. REGULATORY INFORMATION

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.

16. OTHER INFORMATION

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

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information, and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing, or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.