



MATERIAL SAFETY DATA SHEETS

7

Acetonitrile

1. CHEMICAL IDENTITY

Chemical Name : Acetonitrile

Chemical Classification: Toxic, Flammable **Trade Name :**

Synonyms: Methyl cyanide ; Cyanomethane ; Ethanenitrile

Formula : CH₃CN **CAS No:** 75-05-8 **UN No:** 1648

Regulated Identification

Shipping Name : **Hazchem Code :** 2YE

Codes / Label : Class 3, Toxic, Flammable **Hazardous Waste ID No :**

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Acetonitrile	75-05-8	3	
2		4	

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C: 81.6 **Physical State:** Liquid **Appearance:** A colourless limpid liquid

Melting Pt °C: -45.7 **Vapour Pressure** 73 mmHg at 25°C **Odour:** Aromatic odor
@ 35°C mmHg:

Vapour Density(Air =1): 1.41 **Solubility in water at 30°C g/100ml:** Miscible **Others:** Miscible with organic solvents.

Specific Gravity (Water =1): 0.7868 at 15°C **pH :**

3. FIRE / EXPLOSION HAZARD DATA

Flammability : Very flammable **LEL:** 4.4 **Flash Point °C in OC:** 6

TDG Flammability: **UEL:** 16 **Flash Point °C in CC:** 12.8

Autoignition Temperature °C : 524

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products : Combustion by-products include hydrogen cyanide and oxides of nitrogen. Toxic vapors are generated when heated. Vapor heavier than air and may travel a considerable distance to a source of ignition and flash back.

Hazardous Polymerization : Polymerization of the nitrile is suspected.

Combustible Liquid: **Explosive Material:** **Corrosive Material**

Flammable Material: Yes **Oxidiser :** **Others:**

Pyrophoric Material: **Organic Peroxide :**

4. REACTIVITY DATA

Chemical Stability : Stable under normal temperatures and pressures.

Incompatibility with other material : Chlorine fluoride, fluorine, 2-cyano-2-propyl nitrate, dinitrogen tetraoxide, indium, diphenyl sulfoxide, trichlorosilane, n-fluoro compounds, iron (III) perchlorate, lanthanide, nitric acid, perchloric acid, sulfuric acid, sulfur trioxide

Reactivity : Will react with water steam, or acids to produce toxic and flammable vapors.

Hazardous Reaction Products :

5. HEALTH HAZARD DATA

Routes of entry: Inhalation, Ingestion, skin and eyes

Effects of Exposure / Symptoms:

Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma, may even result in death. May cause liver and kidney damage. Vapors may cause dizziness or suffocation. May cause skin, eye or digestive tract irritation.

Emergency Treatment :

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen.

Skin: Get medical aid immediately. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

LD50 (oral-rat) mg/kg:	175 mg/kg	STEL:	60 ppm
LC50 (rat) mg/kg:	7500 ppm/8 hr	Odour Threshold:	70.0 mg/m ³
Permissible Exposure Limit:	40 ppm (70 mg/m ³)	TLV (ACGIH) :	20 ppm; skin.

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	2	3	0	

6. PREVENTIVE MEASURES

Personal Protective Equipment : Wear appropriate protective eyeglasses or chemical safety goggles.

Equipment : Wear appropriate protective gloves to prevent skin exposure. Wear appropriate protective clothing to prevent skin exposure.

Handling : Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage : Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Precautions : Keep away from sources of ignition. No smoking.

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media : Foam, carbon dioxide, dry chemical. Water may be ineffective.

Special Procedure : Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Stay upwind and use water spray to knock down vapour. If material is on fire or involved in fire: Do not extinguish fire unless flow can be stopped.

Unusual Hazards : If fire becomes uncontrollable or container is exposed to direct flame- evacuate for a radius of 1500 feet. If material leaking (not on fire), downwind evacuation must be considered.

EXPOSURE: First Aid Measures:

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen.

Skin: Get medical aid immediately. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Antidotes / Dosages:

SPILLS :

Steps To Be Taken : Avoid runoff into storm sewers and ditches which lead to waterways. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite.

Waste Disposal Method:**8. ADDITIONAL INFORMATION / REFERENCES****9. MANUFACTURERS / SUPPLIERS DATA**

NAME OF FIRM :	Contact person
MAILING ADDRESS :	in Emergency :
TELEPHONE / TELEX NOS :	Local Bodies involved :
TELEGRAPHIC ADDRESS :	Standard Packing :
OTHERS :	Trem Card Details / Ref :

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