



## MATERIAL SAFETY DATA SHEET

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Acetonitrile, 99%

### SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:

Acetonitrile, 99%

Catalog Numbers:

14952-0000, 14952-0010, 14952-0025, 14952-0250

Synonyms:

Methyl cyanide, AN

Company Information:

LEONID CHEMICALS

62/A-2 2nd Stage, Industrial Suburb

Yeshwanthpur, Bangalore -22, INDIA

Ph- +91-80-23378354

### SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	75-05-8
Chemical Name	:	Acetonitrile
%	:	99%
EINECS#	:	200-835-2
Hazard Symbols	:	XN F
Risk Phrases	:	11 20/21/22 36

### SECTION 3- HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Highly flammable. Harmful by inhalation, in contact with skin and if swallowed.  
Irritating to eyes.

#### Potential Health Effects

Eye:

Causes eye irritation.

Skin:

Causes skin irritation. Harmful if absorbed through the skin. May cause dermatitis.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death. May cause effects similar to those for inhalation exposure. May cause central nervous system depression.

Inhalation:

May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient ion of the blood), convulsions, tachycardia, dyspnea (labored breathing), and death.



Causes irritation of mucous membrane. Aspiration may lead to pulmonary edema. Vapors may cause dizziness or suffocation. Causes upper respiratory tract irritation. Inhalation may lead to dizziness, weakness, and drowsiness, leading to stupor, unconsciousness, and even death. Inhalation may lead to hematemesis, convulsions, shock, coma, and possible death.

**Chronic:**

Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause liver and kidney damage. May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration. Chronic exposure may cause dizziness, dry throat, sleepiness, anorexia, and nausea.

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SECTION 4- FIRST AID MEASURES

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Eyes:

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

Skin:

Get medical aid if irritation develops or persists. Rinse area with large amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Ingestion:

Induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Exposure should be treated as a cyanide poisoning. Effects may be delayed. May be partially metabolized to cyanide in the body. For methemoglobinemia, administer oxygen alone or with Methylene Blue depending on the methemoglobin concentration in the blood.

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SECTION 5- FIRE FIGHTING MEASURES

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General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media:

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

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SECTION 6- ACCIDENTAL RELEASE MEASURES

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General Information:

Use proper personal protective equipment as indicated in Section 8.

#### Spills/Leaks:

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. Do not use combustible materials such as sawdust. Use a spark-proof tool. Provide ventilation.

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### SECTION 7 - HANDLING AND STORAGE

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#### Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

#### Storage:

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Keep from contact with oxidizing materials. Flammables-area. Store protected from moisture.

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### SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

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#### Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

#### Personal Protective Equipment

##### Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

##### Skin:

Wear appropriate protective gloves to prevent skin exposure.

##### Clothing:

Wear appropriate protective clothing to prevent skin exposure.

##### Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Physical State	:	Clear liquid
Color	:	colorless
Odor	:	aromatic odor - sweetish odor
PH	:	Not available.
Vapor Pressure	:	97 mbar @ 20 deg C
Viscosity	:	0.36 cP 20 deg C
Boiling Point	:	81-82 deg C @ 760 mmHg
Freezing/Melting Point	:	-46 deg C
Autoignition Temperature	:	525 deg C ( 977.00 deg F)
Flash Point	:	2 deg C ( 35.60 deg F)
Explosion Limits, lower	:	3.00 vol %
Explosion Limits, upper	:	16.00 vol %
Decomposition Temperature	:	Not Available
Solubility in water	:	Miscible.
Specific Gravity/Density	:	.7810g/cm3
Molecular Formula	:	CH3CN
Molecular Weight	:	41.04

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## SECTION 10 - STABILITY AND REACTIVITY

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### Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

### Conditions to Avoid:

High temperatures.

### Incompatibilities with Other Materials:

Potassium + ammonium nitrate, potassium chlorate, potassium nitrate, sodium/potassium alloy + ammonium nitrate. Substance should not contact either zinc or copper bearing materials.

### Hazardous Decomposition Products:

Oxides of phosphorus, irritating and toxic fumes and gases, nitrogen oxides (NOx) and ammonia (NH<sub>3</sub>).

### Hazardous Polymerization:

Will not occur.

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## SECTION 11 - TOXICOLOGICAL INFORMATION

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RTECS#:

CAS# 75-05-8 : AI7700000

LD50/LC50 : Not Available

CAS# 75-05-8:

Draize test, rabbit, eye: 100 uL/24H Moderate; Inhalation, mouse: LC50 = 2693 ppm/1H; Inhalation, rabbit: LC50 = 2828 ppm/4H; Inhalation, rat: LC50 = 7551 ppm/8H; Oral, mouse: LD50 = 269 mg/kg; Oral, rabbit: LD50 = 50 mg/kg; Oral, rat: LD50 = 2460 mg/kg; Skin, rabbit: LD50 = >2 gm/kg. Not available.

Carcinogenicity:

Acetonitrile -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Other:

See actual entry in RTECS for complete information.

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## SECTION 12 - ECOLOGICAL INFORMATION

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Ecotoxicity:

Fish:

Bluegill/Sunfish: LC50: 1000-1850 mg/l; 96H; .Fish: Fathead

Minnow:

LC50: 1640 mg/l; 96H; .

Other:

This chemical is not likely to bioconcentrate. Biodegradable. Do not empty into drains.

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## SECTION 13 - DISPOSAL CONSIDERATIONS

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Dispose of in a manner consistent with federal, state, and local regulations.

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## SECTION 14 - TRANSPORT INFORMATION

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### IATA

Shipping Name : ACETONITRILE  
Hazard Class : 3  
UN Number : 1648  
Packing Group : II

### IMO

Shipping Name : ACETONITRILE  
Hazard Class : 3  
UN Number : 1648  
Packing Group : II

### RID/ADR

Shipping Name : ACETONITRILE  
Hazard Class : 3  
UN Number : 1648  
Packing group : II

USA RQ: CAS# 75-05-8: 5000 lb final RQ; 2270 kg final RQ

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## SECTION 15 - REGULATORY INFORMATION

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### European/International Regulations

European Labeling in Accordance with EC Directives

#### Hazard Symbols:

XN F

#### Risk Phrases:

R 11 Highly flammable.

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36 Irritating to eyes.

#### Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 36/37 Wear suitable protective clothing and gloves.

#### WGK (Water Danger/Protection)

CAS# 75-05-8: 2

United Kingdom Occupational Exposure Limits

CAS# 75-05-8: OES-United Kingdom, TWA 40 ppm TWA; 68 mg/m<sup>3</sup> TWA

CAS# 75-05-8: OES-United Kingdom, STEL 60 ppm STEL; 102 mg/m<sup>3</sup> STEL

United Kingdom Maximum Exposure Limits

Information not available

Canada

CAS# 75-05-8 is listed on Canada's DSL List.

CAS# 75-05-8 is listed on Canada's Ingredient Disclosure List. Exposure Limits

CAS# 75-05-8: OEL-ARAB Republic of Egypt:TWA 40 ppm (70 mg/m<sup>3</sup>);Skin

OEL-AUSTRALIA:TWA 40 ppm (70 mg/m<sup>3</sup>);STEL 60 ppm ;Skin

OEL-AUSTRIA:TWA 40 ppm (70 mg/m<sup>3</sup>)

OEL-BELGIUM:TWA 40 ppm (67 mg/m<sup>3</sup>);STEL 60 ppm (10 mg/m<sup>3</sup>);Skin

OEL-DENMARK:TWA 40 ppm (70 mg/m<sup>3</sup>);STEL 60 ppm (10 mg/m<sup>3</sup>)

OEL-FINLAND:TWA 40 ppm (70 mg/m<sup>3</sup>);STEL 60 ppm (10 mg/m<sup>3</sup>)

OEL-FRANCE:TWA 40 ppm (70 mg/m<sup>3</sup>)

OEL-GERMANY:TWA 40 ppm (70 mg/m<sup>3</sup>)

OEL-HUNGARY:TWA 50 mg/m<sup>3</sup>;STEL 100 mg/m<sup>3</sup>;Skin JAN9

OEL-THE NETHERLANDS:TWA 40 ppm (70 mg/m<sup>3</sup>)

OEL-THE PHILIPPINES:TWA 40 ppm (70 mg/m<sup>3</sup>)

OEL-RUSSIA:STEL 10 mg/m<sup>3</sup>

OEL-SWITZERLAND:TWA 40 ppm (70 mg/m<sup>3</sup>);STEL 80 ppm ;Skin

OEL-TURKEY:TWA 40 ppm (70 mg/m<sup>3</sup>)

OEL-UNITED KINGDOM:TWA 40 ppm (70 mg/m<sup>3</sup>);STEL 60 ppm

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

CAS# 75-05-8 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.