

# Material Safety Data Sheet



**ACETONITRILE**  
(Methyl cyanide)

VERSION : 01  
DATE OF ISSUE :02-12-2016  
SUPERSEDES : Nil

Product Code : 11060

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## **1. Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

Trade name : ACETONITRILE

Product code : 11060

### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use : Industrial. For professional use only.

### **1.3. Details of the supplier of the safety data sheet**

Company identification : MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : [info@molychem.net](mailto:info@molychem.net)

Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co.,  
Kulgaon, Badlapur (E), Dist.-Thane-421 503.

## **2. Hazards identification -DSD**

### **2.1. Classification of the substance or mixture**

Classification EC 67/548 or EC 1999/45

Classification : F; R11

Xn; R20/21/22

Xi; R36

**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**

**Health hazards** : Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332

Acute toxicity, dermal - Category 4 - Warning (CLP : Acute Tox. 4) H312

Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319

Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302

**Physical hazards** : Flammable liquids - Category 2 - Danger (CLP : Flam. Liq. 2) H225

### **2.2. Label elements**

Labelling EC 67/548 or EC 1999/45

Symbol(s) : F : Highly flammable

Xn : Harmful



**R Phrase(s)** : R11 : Highly flammable.

R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed.

R36 : Irritating to eyes.

**S Phrase(s)** : S1/2 : Keep locked up and out of reach of children.

S16 : Keep away from sources of ignition - No smoking.

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S36/37 : Wear suitable protective clothing and gloves.

## Labelling Regulation EC 1272/2008 (CLP)

### Hazard pictograms



**Signal words** : Danger

**Hazard statements** : H225 : Highly flammable liquid and vapour.

H302 : Harmful if swallowed.

H312 : Harmful in contact with skin.

H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

### Precautionary statements

• **General** : P102: Keep out of reach of children.

P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

• **Prevention** : P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.

P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P271: Use only outdoors or in a well-ventilated area.

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.

P233: Keep container tightly closed.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

• **Response** : P302+P352: IF ON SKIN : Wash with plenty of soap and water.

P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

P337+P313: If eye irritation persists: Get medical advice/attention.

P370+P378: In case of fire: Use for extinction.

• **Storage** : P403+P235: Store in well-ventilated place. Keep cool.

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• **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

**Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### 3. Composition/information on ingredients

**Substance / Preparation** : Preparation.

Substance name	Contents	CAS No
Acetonitrile :	99.9%	75-05-8

### 4. First aid measures

#### 4.1. Description of first aid measures

**Inhalation** : Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

**Skin contact** : Wash with plenty of soap and water. Wash contaminated clothing before reuse. Specific treatment (see on this label). Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor.

**Eye contact** : Get medical advice. If eye irritation persists : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

**Ingestion** : Obtain emergency medical attention. Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms relating to use** : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Causes serious eye irritation. Danger of serious damage to health by prolonged exposure through inhalation.

Swallowing a small quantity of this material will result in serious health hazard.

#### 4.3. Indication of any immediate medical attention and special treatment needed

**General information** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

### 5. Fire-fighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable extinguishing media** : Do not use a heavy water stream.

**Surrounding fires** : Use water spray or fog for cooling exposed containers.

#### 5.2. Special hazards arising from the substance or mixture

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**Flammable class :** Highly flammable liquid and vapour.

**Hazardous combustion products :** Under fire conditions, hazardous fumes will be present.

### **5.3. Advice for fire-fighters**

**Protection against fire :** Do not enter fire area without proper protective equipment, including respiratory protection.

**Special procedures :** Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

## **6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**For emergency responders :** Equip cleanup crew with proper protection.

Ventilate area.

**Technical measures :** Use special care to avoid static electric charges.

**Special precautions :** Remove ignition sources. No naked lights. No smoking.

**For non-emergency personnel :** Evacuate unnecessary personnel.

### **6.2. Environmental precautions**

**Environmental precautions :** Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### **6.3. Methods and material for containment and cleaning up**

**Clean up methods :** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

### **6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

## **7. Handling and storage**

### **7.1. Precautions for safe handling**

**Handling :** Handle empty containers with care because residual vapours are flammable. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, vapours, spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

**Technical protective measures :** Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment.

**Special precautions :** No naked lights. No smoking.

### **7.2. Conditions for safe storage, including any incompatibilities**

**Storage :** Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Ground/bond container and receiving equipment. Keep container tightly closed.

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**Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

### 7.3. Specific end use(s)

**Specific end use(s)** : None.

## 8. Exposure controls/personal protection

### 8.1. Exposure controls

**Personal protection** : Avoid all unnecessary exposure.

- **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection** : Wear protective gloves.
- **Eye protection** : Chemical goggles or safety glasses.
- **Others** : When using, do not eat, drink or smoke.

### 8.2. Control parameters

**Occupational Exposure Limits** : No data available.

**Occupational Exposure Limits** : Acetonitrile : ILV (EU) - 8 H - [mg/m<sup>3</sup>] : ( 70 Skin. )

Acetonitrile : ILV (EU) - 8 H - [ppm] : ( 40 Skin. )

Acetonitrile : VLA-ED [ppm] : 40

Acetonitrile : VLA-ED [mg/m<sup>3</sup>] : 68

Acetonitrile : VLA-EC [ppm] : 60

Acetonitrile : VLA-EC [mg/m<sup>3</sup>] : 102

**VLA-ED [ppm]** : 40

**VLA-ED [mg/m<sup>3</sup>]** : 68

**VLA-EC [ppm]** : 60

**VLA-EC [mg/m<sup>3</sup>]** : 102

**ILV (EU) - 8 H - [ppm]** : ( 40 Skin. )

**ILV (EU) - 8 H - [mg/m<sup>3</sup>]** : ( 70 Skin. )

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Physical state at 20 °C** : Liquid.

**Odour threshold** : No data available.

**pH value** : No data available.

**Melting point [°C]** : -48<sup>0</sup>C

**Decomposition point [°C]** : N/A

**Critical temperature [°C]** : N/A

**Auto-ignition temperature [°C]** : 525

**Flammability (solid, gas)** : Flammable.

Highly flammable liquid and vapour.

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**Flash point [°C] : 2<sup>0</sup>C**  
**Boiling point [°C] : 81**  
**Initial boiling point [°C] : N/A**  
**Final boiling point [°C] : N/A**  
**Evaporation rate : 5.8**  
**Vapour pressure [20°C] : 9.7kPa**  
**Vapour pressure mm/Hg : 73**  
**Vapour density : 1,4**  
**Density [g/cm<sup>3</sup>] : 0,79**  
**Relative density, gas (air=1) : 1,4**  
**Relative density, liquid (water=1) : N/A**  
**Solubility in water [% weight] : Complete.**  
**Solubility in water : N/A**  
**Log Pow octanol / water at 20°C : No data available.**  
**Solubility : 7**  
**Viscosity at 40°C [mm<sup>2</sup>/s] : N/A**

## **9.2. Other information**

**Explosive properties : N/A**  
**Explosion limits - upper [%] : N/A**  
**Explosion limits - lower [%] : N/A**  
**Oxidising properties : No data available.**

## **10. Stability and reactivity**

### **10.1. Reactivity**

**Reactivity : Not established.**

### **10.2. Chemical stability**

**Chemical stability : Stable under recommended storage conditions.**

### **10.3. Possibility of hazardous reactions**

**Hazardous reactions : Not established.**

### **10.4. Conditions to avoid**

**Conditions to avoid : Direct sunlight. Extremely high or low temperatures. Open flame.**

### **10.5. Incompatible materials**

**Materials to avoid : Strong acids. Strong bases.**

### **10.6. Hazardous decomposition products**

**Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.**  
**May release flammable gases.**

## **11. Toxicological information**

### **11.1. Information on toxicological effects**

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**Toxicity information :** The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

## **Acute toxicity**

- **Inhalation :** Harmful if inhaled.
- **Dermal :** Harmful in contact with skin.
- **LD50 Rabbit dermal [mg/kg] :** 50
- **Ingestion :** Harmful if swallowed.
- **Rat oral LD50 [mg/kg] :** 100

**Corrosion :** Based on available data, the classification criteria are not met.

**Irritation :** Causes serious eye irritation.

**Sensitization :** Based on available data, the classification criteria are not met.

**Mutagenicity :** Based on available data, the classification criteria are not met.

**Carcinogenicity :** Based on available data, the classification criteria are not met.

**Toxic for reproduction :** Based on available data, the classification criteria are not met.

**STOT-single exposure :** Based on available data, the classification criteria are not met.

**STOT-repeated exposure :** Based on available data, the classification criteria are not met.

**Aspiration hazard :** Based on available data, the classification criteria are not met.

## **12. Ecological information**

### **12.1. Toxicity**

**Toxicity information :** The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

### **12.2. Persistence - degradability**

**Persistence - degradability :** Biodegradable.

### **12.3. Bioaccumulative potential**

**Bioaccumulative potential :** Not established.

### **12.4. Mobility in soil**

**Mobility in soil :** Not established.

### **12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment :** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### **12.6. Other adverse effects**

**Environmental precautions :** Avoid release to the environment.

## **13. Disposal considerations**

### **13.1. Waste treatment methods**

**General :** Avoid release to the environment. Dispose in a safe manner in accordance with

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local/national regulations.

Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special precautions :** Handle empty containers with care because residual vapours are flammable.

## **14. Transport information**

### **14.1. Land transport (ADR-RID)**

**Proper shipping name :** ACETONITRILE

**UN N° :** 1648

**H.I. nr :** 33

**ADR - Class :** 3

**Labelling - Transport :** 3 : Flammable liquid.

**ADR - Classification code :** F1

**ADR - Group :** II

**ADR - Packing instructions :** P001 R001

**ADR - Limited Quantity :** 1 L

**ADR - Tunnel code :** D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and

E. Other carriage: Passage forbidden through tunnels of category E.

### **14.2. Sea transport (IMDG) [English only]**

**Proper shipping name :** ACETONITRILE

**UN N° :** 1648

**IMO-IMDG - Class or division :** 3 : Flammable liquid.

**IMO-IMDG - Packing group :** II

**IMO-IMDG - Packing instructions :** P001

**IMO-IMDG - Limited quantities :** 1 L

**IMO-IMDG - Marine pollution :** No

**EMS-Nr :** F-E S-D

### **14.3. Air transport (ICAO-IATA) [English only]**

**Proper shipping name :** ACETONITRILE

**UN N° :** 1648

**IATA - Class or division :** 3 : Flammable liquid.

**IATA - Packing group :** II

**IATA - Passenger and Cargo Aircraft :** ALLOWED

**- Passenger and Cargo - Packing :** 353

**instruction**

**- Passenger and Cargo - Maximum :** 5 L

**Quantity/Packing**

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**IATA - Cargo only : ALLOWED**  
**- Cargo only - Packing instruction : 364**  
**- Cargo only - Maximum Quantity/ : 60 L**

## **Packing**

**IATA - Limited Quantities : 1 L**

**ERG-Nr : 3L**

## **15. Regulatory information**

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Safety, health and environmental** : Ensure all national/local regulations are observed.  
**regulations/legislation specific for the substance or mixture**

**REACH Restrictions - Annex XVII** : The components of this product are not subject to restrictions.

**REACH Authorisation - Annex XIV** : The components of this product are not subject to authorization.

### **15.2. Chemical Safety Assessment**

**Chemical Safety Assessment** : It has not been carried out.

## **16. Other information**

**Abbreviations and acronyms** : PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

**Sources of key data used** : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**Further information** : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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