

## **MATERIAL SAFETY DATA SHEET**

### **VALERONITRILE**

**(For Synthesis)**

**MSDS CAS: - 110-59-8**

## **Section 1: Chemical Product and Company Identification**

### **Section 1: Chemical Product**

**Product Name: VALERONITRILE (For Synthesis)**

**CAS#: 110-59-8**

**Synonym: Not available.**

**Chemical Name: Not available.**

**Chemical Formula: Not available.**

**Brand : OXFORD**

### **Details Of The Supplier Of The Safety Data Sheet :**

**Company identification: OXFORD LAB FINE CHEM LLP**  
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## **Section 2: Composition and Information on Ingredients**

**Substance / Preparation: VALERONITRILE**  
CAS No: 110-59-8  
Substance.

**Contains no other components or impurities which will influence the classification of the product.**

## Section 3: Hazards Identification

### Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45:

Classification: R10

T; R25

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

Health hazards: Acute toxicity, Oral - Category 3 - Danger (CLP: Acute Tox. 3) H301

Physical hazards: Flammable liquids - Category 3 - Warning (CLP: Flam. Liq. 3) H226

### Label elements

Symbol(s): T: Toxic

R Phrase(s): R10: Flammable.

R25: Toxic if swallowed.

S Phrase(s): S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

### Labelling Regulation EC 1272/2008 (CLP):

Signal words: Danger

Hazard statements: H226: Flammable liquid and vapour.

H301: Toxic if swallowed.

### Precautionary statements

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. P233: Keep container tightly closed. P264: Wash thoroughly after handling. P270: Do not eat, drink or smoke when using this product.

Response: P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower. P370+P378: In case of fire: Use for extinction.

Storage: P403+P235: Store in well-ventilated place. Keep cool. P405: Store locked up.

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.

## Section 3: Hazards Identification (Continued)

### 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.

## Section 4: First Aid Measures

### Description of first aid measures

**Inhalation:** Assure fresh air breathing. Allow the victim to rest.

**Skin contact:** Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.

**Eye contact:** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

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

**Symptoms relating to use:** Swallowing a small quantity of this material will result in serious health hazard.

### 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).

## Section 5: Fire and Explosion Data

### 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.

### Special hazards arising from the substance or mixture

**Hazardous combustion products:** Under fire conditions, hazardous fumes will be present. Thermal decomposition generates: Corrosive vapours.

### Advice for fire-fighters

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

## Section 5: Fire and Explosion Data (Continued)

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

## Section 6: Accidental Release Measures

### 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.

### Environmental precautions

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

### 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.

### Reference to other sections

See section 8. Exposure controls/personal protection

## Section 7: Handling and Storage

### Precautions for safe handling

**Handling:** Handle empty containers with care because residual vapours are flammable. Take precautionary measures against static discharge. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

**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 only non-sparking tools. Use explosion-proof electrical, ventilating, lighting, equipment.

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

## Section 7: Handling and Storage (Continued)

### 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.

**Storage regulation:** Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

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

## Section 8: Exposure Controls/Personal Protection

### Exposure controls

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

**Respiratory protection:** Wear approved mask.

**Hand protection:** Wear protective gloves.

**Eye protection:** Chemical goggles or safety glasses.

**Others:** When using, do not eat, drink or smoke.

### Control parameters

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

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Physical state at 20 °C:</b>	<b>Liquid.</b>
<b>Colour:</b>	<b>Clear Colorless</b>
<b>Odour:</b>	<b>N/A</b>
<b>Odour threshold:</b>	<b>No data available.</b>
<b>pH value :</b>	<b>No data available.</b>
<b>Melting point [°C]:</b>	<b>96 °C</b>
<b>Decomposition point [°C]:</b>	<b>N/A</b>
<b>Critical temperature [°C]:</b>	<b>N/A</b>
<b>Auto-ignition temperature [°C]:</b>	<b>520 °C</b>
<b>Flammability (solid, gas):</b>	<b>Flammable. Flammable liquid and vapour.</b>
<b>Flash point [°C]:</b>	<b>40 °C</b>

## Section 9: Physical and Chemical Properties (Continued)

Boiling point [°C]:	139 - 141 °C
Initial boiling point [°C]:	139 °C
Final boiling point [°C]:	141 °C
Evaporation rate:	N/A
Vapour pressure [20°C]:	7.1 hPa at 20 °C
Vapour pressure mm/Hg:	N/A
Vapour density:	2, 8
Density [g/cm <sup>3</sup> ]:	0,795
Relative density, gas (air=1):	N/A
Relative density, liquid (water=1):	N/A
Solubility in water [% weight]:	N/A
Solubility in wate:	N/A
Log Pow octanol / water at 20°C:	No data available.
Solubility:	N/A
Viscosity at 40°C [mm <sup>2</sup> /s]:	N/A

### Other information

Explosive properties:	N/A
Explosion limits - upper [%]:	7, 60%
Explosion limits - lower [%]:	1, 60%
Oxidising properties:	No data available.

## Section 10: Stability and Reactivity Data

**Reactivity:** Not established.

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

**Possibility of hazardous reactions:** Not established.

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

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

**Hazardous decomposition products:** Fumes. Carbon monoxide. Carbon dioxide. Thermal decomposition generates: Corrosive vapours.

## Section 11: Toxicological Information

### Information on toxicological effects

#### Acute toxicity:

<b>Inhalation:</b>	Based on available data, the classification criteria are not met.
<b>Dermal:</b>	Based on available data, the classification criteria are not met.
<b>Ingestion:</b>	Toxic if swallowed.
<b>Corrosion:</b>	Based on available data, the classification criteria are not met.
<b>Irritation:</b>	Based on available data, the classification criteria are not met.
<b>Sensitization:</b>	Based on available data, the classification criteria are not met.
<b>Mutagenicity:</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity:</b>	Based on available data, the classification criteria are not met.
<b>Toxic for reproduction:</b>	Based on available data, the classification criteria are not met.
<b>STOT-single exposure:</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure:</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard:</b>	Based on available data, the classification criteria are not met.

## Section 12: Ecological Information

**Toxicity information:** Not established.

**Persistence - degradability:** Biodegradable.

**Bioaccumulative potential:** Not established.

**Mobility in soil:** Not established.

**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.

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

## Section 13: Disposal Considerations

### Waste Disposal:

**General:** Avoid release to the environment. Dispose in a safe manner in accordance with 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:** Hazardous waste due to toxicity. Handle empty containers with care because residual vapours are flammable.

## Section 14: Transport Information

### Land transport (ADR-RID)

**Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S.

**UN N°:** 1992

**H.I. nr:** 36

**ADR - Class:** 3

### Sea transport (IMDG) [English only]

**Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S.

**UN N°:** 1992

**IMO-IMDG - Class or division:** 3: Flammable liquid. (6.1: Toxic substances.)

**IMO-IMDG - Packing group:** III

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

**Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S.

**UN N°:** 1992

**IATA - Class or division:** 3: Flammable liquid. (6.1: Toxic substances.)

**IATA - Packing group:** III

## Section 15: Other Regulatory Information

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

**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.

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

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

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