

MATERIAL SAFETY DATA SHEET

Chemical Product

Product Name: VALERONITRILE (For Synthesis)

CAS#: 110-59-8

Synonym: Not available.

Chemical Name: Not available.

Chemical Formula: Not available.

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.

Name	S.K.U	% by Weight
VALERONITRILE	GCS-4256	100

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.

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.

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).

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.

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

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

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.

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.

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.

Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state at 20 °C:	Liquid.
Colour:	Clear Colorless
Odour:	N/A
Odour threshold:	No data available.
pH value :	No data available.
Melting point [°C]:	96 °C
Decomposition point [°C]:	N/A
Critical temperature [°C]:	N/A
Auto-ignition temperature [°C]:	520 °C
Flammability (solid, gas):	Flammable. Flammable liquid and vapour.
Flash point [°C]:	40 °C
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 ³]:	0,795
Relative density, gas (air=1):	

N/A
 Relative density, liquid (water=1):
 N/A
 Solubility in water [% weight]:
 N/A
 Solubility in water:
 N/A
 Log Pow octanol / water at 20°C:
 No data available.
 Solubility:
 N/A
 Viscosity at 40°C [mm²/s]:
 N/A

Other information

Explosive properties:

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

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.

Toxicological Information

Information on toxicological effects

Acute toxicity:	
Inhalation:	Based on available data, the classification criteria are not met.
Dermal:	Based on available data, the classification criteria are not met.
Ingestion:	Toxic if swallowed.
Corrosion:	Based on available data, the classification criteria are not met.
Irritation:	Based on available data, the classification criteria are

not met.
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.

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.

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.

Transformation 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

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.



Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

The information contained herein is provided in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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