

SAFETY DATA SHEET

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ACETONITRILE

SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

1.1 Product identifier:	
CAS Number:	75-05-8
EC number:	200-835-2
1.2 SYNONYMS	• Methyl cyanide • Cyanomethane • Ethanenitrile • Acetonitril

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 • Flammable liquids (Category 2) • Acute toxicity, Inhalation (Category 4) • Acute toxicity, Dermal (Category 4) • Acute toxicity, Oral (Category 4) • Eye irritation (Category 2) • Single exposure (central nervous system, respiratory organs), class 1 • Toxicity of specific target organs, repeated exposure (blood system, central nervous system, respiratory system, liver, kidney), category 2

Hazard Pictograms:	
Signal Word:	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:	P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking P280: Wear protective gloves/protective clothing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
2.3 Other hazards:	
Inhalation:	May cause irritation to the respiratory tract, leading to coughing throat irritation, and shortness of breath.
Ingestion:	can lead to symptoms of poisoning, including nausea, vomiting, abdominal pain, and diarrhea.
Skin Contact:	repeated skin contact can cause irritation, leading to symptoms such as redness, itching, and dryness.
Eye contact:	May cause irritation, redness, pain and burning sensation.
Chronic Exposure:	Prolonged exposure may result in neurological symptoms such as headaches, dizziness, fatigue, and cognitive impairments
Aggravation of pre-existing conditions	Individuals with asthma, chronic bronchitis, or other pulmonary disorders may experience worsened symptoms, such as

	increased wheezing, coughing, or shortness of breath when exposed
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SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 75-05-8 ACETONITRILE
Identification number(s):	EC number: 200-835-2

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
After skin contact:	Wash off with soap and plenty of water. Consult a physician.
After eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
After swallowing:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed	Treat as cyanide poisoning., Always have on hand a cyanide first-aid kit, together with proper instructions
4.3 Indication of any immediate medical attention and special treatment needed	No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture	no data available
5.3 Advice for firefighters	Wear fully protective suit, safety glasses and respiratory device .
5.4 further information	Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
6.2 Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
6.3 Methods and material for containment and cleaning up:	Contain spillage, and then collect with an absorbent material or sand and then place in container for disposal according to local regulations.
6.4 Reference to other sections	For disposal, see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge
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7.2 Conditions for safe storage, including any incompatibilities	Dedicated tank and keep cool ventilate far way from fire heat and sunlight. keep temp below 40C with several extinguish facilities. Do not keep it with oxidant or acidity substance or relevant hazards
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Liquid
Colour:	Colourless
Odour:	Pungent
pH-value:	6.9-7.0
Melting point/Melting range:	-45.7°C
Boiling point/Boiling range:	82°C
Flammability (solid, gaseous):	Not determined
Ignition temperature:	523,0
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Flash point:	2,0
Danger of explosion:	Very high when open.
Explosion limits: Lower:	5.1% by volume in air.(approx.)
Explosion limits: Upper:	15.1% by volume in air.(approx.)
Vapour pressure:	73,18 hPa at 15 119,81 hPa at 25 413,23 hPa at 55
Density at 20 °C:	0.786 g/cm ³ .
Relative density:	0.786 at 20°C
Vapour density:	1.18 g/L
Evaporation rate:	0.8
Solubility in / Miscibility with- water at 20 °C:	Completely soluble
Partition coefficient:(n- octanol/water)	-0,34
Viscosity:	0.36 mPa.s
9.2 other safety information	
Surface tension:	29,0 mN/m at 20,0

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	No data available
10.3 Possibility of hazardous reactions	No data available
10.4 Conditions to avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.
10.5 Incompatible materials:	acids, Bases, Oxidizing agents, Reducing agents, Alkali metals
10.6 Hazardous decomposition products	No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 Oral - rat - 2.460 mg/kg LC50 Inhalation - rat - 8 h – 7551 ppm Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Convulsions or effect on seizure threshold. Blood: Hemorrhage. LD50 Dermal - rabbit - 2.000 mg/kg
Skin corrosion/Irritation:	Skin - rabbit - Mild skin irritation
Serious eye damage/irritation:	Eyes - rabbit - Irritating to eyes.
Respiratory damage/irritation:	Did not cause sensitization on laboratory animals.
Ingestion:	can lead to severe toxicity
Germ cell mutagenicity:	no data available
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
Reproductive toxicity:	no data available

Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Treat as cyanide poisoning., Always have on hand a cyanide first-aid kit, together with proper instructions
11.2 Additional toxicological information	
Aquatic Toxicity:	It can still pose risks to aquatic organisms in relatively low concentrations or with prolonged exposure
Biodegradability:	moderately biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50 - Pimephales promelas (fathead minnow) - 1.640,00 mg/l - 96 h EC50 - Daphnia magna (Water flea) - 3.600,00 mg/l - 48 h NOEC - Daphnia magna (Water flea) - 640 mg/l - 14 d
12.2 Persistence and degradability:	No data available
12.3 Bioaccumulative potential:	No data available
12.4 Mobility in soil:	No data available
12.5 Other adverse effects	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging: Recommendation:	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Recommended cleansing agents:	Soap, water, ethyl alcohol, specialized chemical cleaners

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	1648
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	ACETONITRILE
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	3
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	NO
14.6 Special precautions for user	No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified as flammable liquid
Named dangerous substances	ANNEX I Substance is not listed
15.2 Chemical safety assessment:	Chemical assessment has not been carried out to check for potential hazard.

SECTION 16: Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.