

Safety Data Sheet

according to UK REACH Regulation

Acetonitrile

Revision date: 08.11.2022

Product code: PECH-0113-R-V3

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

1.1. Product identifier

Acetonitrile

Further trade names

Synonyme:

Methyl cyanide; ACN

CAS No: 75-05-8
Index No: 608-001-00-3
EC No: 200-835-2

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

1.3. Details of the supplier of the safety data sheet

Company name: ABX advanced biochemical compounds
Biomedizinische Forschungsreagenzien GmbH
Street: Heinrich-Gläser-Straße 10-14
Place: 01454 Radeberg
Telephone: +49 3528 4041 60 Telefax: +49 3528 4041 65
e-mail: info@abx.de
Contact person: Dr. Christoph Meyer Telephone: +49 3528 4041 8732
e-mail: meyer@abx.de
Internet: http://www.abx.de

1.4. Emergency telephone number:

+49 3528 4041 60

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225
Acute Tox. 4; H332
Acute Tox. 4; H312
Acute Tox. 4; H302
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Signal word: Danger

Pictograms:



Hazard statements

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

SECTION 3: Composition/information on ingredients**3.1. Substances**Sum formula: C₂H₃N**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (GB CLP Regulation)	
75-05-8	acetonitrile; cyanomethane	100 %
	200-835-2	608-001-00-3
	Flam. Liq. 2, Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H225 H332 H312 H302 H319	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
75-05-8	200-835-2	acetonitrile; cyanomethane	100 %
	inhalation: LC50 = 11 mg/l (vapours); inhalation: LC50 = 11 mg/l (dusts or mists); dermal: LD50 = 988 mg/kg; oral: ATE = 500 mg/kg		

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with: Water. Change contaminated clothing. Medical treatment necessary.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Water. Carbon dioxide (CO₂). Foam. Extinguishing powder.**5.2. Special hazards arising from the substance or mixture**

Combustible. Vapours may form explosive mixtures with air.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

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General advice

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard.

6.3. Methods and material for containment and cleaning up**Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Keep container in a well-ventilated place.

Hints on joint storage

Do not store together with: Material, rich in oxygen, oxidizing.

Further information on storage conditions

Storage at below °C: +30

Protect against: Light.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
75-05-8	Acetonitrile	40	68		TWA (8 h)	WEL
		60	102		STEL (15 min)	WEL

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: liquid
 Colour: colourless
 Odour: Ether

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Changes in the physical state

Melting point/freezing point:	-45,7 °C
Boiling point or initial boiling point and boiling range:	81,6 °C
Flash point:	2 °C
Lower explosion limits:	3 vol. %
Upper explosion limits:	17 vol. %
Viscosity / dynamic: (at 25 °C)	0.316 mPa·s
Water solubility: (at 20 °C)	easily soluble.
Vapour pressure: (at 20 °C)	97 hPa
Density (at 20 °C):	0,786 g/cm ³

SECTION 10: Stability and reactivity**10.4. Conditions to avoid**

Keep away from heat. Ignition hazard.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
75-05-8	acetonitrile; cyanomethane				
	oral	ATE 500 mg/kg			
	dermal	LD50 988 mg/kg	Rabbit	IUCLID	
	inhalation vapour	LC50 11 mg/l			
	inhalation dust/mist	LC50 11 mg/l			

Irritation and corrosivity

Irritating to eyes.

SECTION 12: Ecological information**12.1. Toxicity**

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
75-05-8	acetonitrile; cyanomethane					
	Acute fish toxicity	LC50 1640 mg/l	96 h	Pimephales promelas	IUCLID	

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-05-8	acetonitrile; cyanomethane	-0,34

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number:	UN 1648
14.2. UN proper shipping name:	ACETONITRILE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1648
14.2. UN proper shipping name:	ACETONITRILE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1648
14.2. UN proper shipping name:	ACETONITRILE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

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Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1648	
14.2. UN proper shipping name:	ACETONITRILE	
14.3. Transport hazard class(es):	3	
14.4. Packing group:	II	
Hazard label:	3	
Limited quantity Passenger:	1 L	
Passenger LQ:	Y341	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		353
IATA-max. quantity - Passenger:		5 L
IATA-packing instructions - Cargo:		364
IATA-max. quantity - Cargo:		60 L

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2004/42/EC (VOC): 100 % (786 g/l)

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

SECTION 16: Other information**Relevant H and EUH statements (number and full text)**

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.