

# Safety Data Sheet

according to UK REACH Regulation

## Acetonitrile, Anhydrous

Revision date: 28.04.2023

Product code: K-5041SIE-V2

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

#### 1.1. Product identifier

Acetonitrile, Anhydrous

#### 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: C<sub>2</sub>H<sub>3</sub>N**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 (CO<sub>2</sub>). 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

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

CAS No	Substance	ppm	mg/m <sup>3</sup>	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	
Melting point/freezing point:		-45,7 °C

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Boiling point or initial boiling point and boiling range:	81,6 °C
Lower explosion limits:	3 vol. %
Upper explosion limits:	17 vol. %
Flash point:	2 °C
Water solubility: (at 20 °C)	easily soluble.
Vapour pressure: (at 20 °C)	97 hPa
Density (at 20 °C):	0,786 g/cm <sup>3</sup>

**9.2. Other information****Other safety characteristics**

Viscosity / dynamic: (at 25 °C)	0.316 mPa·s
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**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.

**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**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. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**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

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EmS: F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 1648
<b>14.2. UN proper shipping name:</b>	ACETONITRILE
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	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.