Telefax: +49 3528 4041 65

# **Safety Data Sheet**

## according to UK REACH Regulation

#### **Acetonitrile**

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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

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 +49 3528 4041 60

number:

# **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+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H319 Causes serious eye irritation.

# **Precautionary statements**

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

smoking.

P233 Keep container tightly closed.

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P240	Ground and bond container and receiving equipment.	
P241	Use explosion-proof electrical/ventilating/lighting equipment.	
P242	Use non-sparking tools.	
P243	Take action to prevent static discharges.	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	
P270	Do not eat, drink or smoke when using this product.	
P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.	
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.	
P330	Rinse mouth.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.	
P312	Call a POISON CENTER/doctor if you feel unwell.	
P362+P364	Take off contaminated clothing and wash it before reuse.	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P312	Call a POISON CENTER/doctor if you feel unwell.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P337+P313	If eye irritation persists: Get medical advice/attention.	
P403+P235	Store in a well-ventilated place. Keep cool.	

## **SECTION 3: Composition/information on ingredients**

## 3.1. Substances

Sum formula: C2H3N

# **Hazardous components**

CAS No	Chemical name					
	EC No	REACH No				
	Classification (GB CLP Regulation)					
75-05-8	acetonitrile; cyanomethane					
	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.

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#### 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

#### 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

Recommended storage temperature: max. 30 °C

Protect against: Light.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

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#### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	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

## Changes in the physical state

Melting point/freezing point: -45,7 °C
Boiling point or initial boiling point and 81,6 °C

boiling range:

Flash point: 2 °C

Lower explosion limits: 3 vol. %

Upper explosion limits: 17 vol. %

Viscosity / dynamic: 0.316 mPa·s

(at 25 °C)

Water solubility: easily soluble.

(at 20 °C)

Vapour pressure: 97 hPa

(at 20 °C)

Density (at 20 °C): 0,786 g/cm<sup>3</sup>

# **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.

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CAS No	Chemical name								
	Exposure route	Dose		Species	Source	Method			
75-05-8	acetonitrile; cyanometh	acetonitrile; cyanomethane							
	oral	ATE mg/kg	500						
	dermal	LD50 mg/kg	988	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

#### 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):314.4. Packing group:IIHazard label:3

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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):314.4. Packing group:IIHazard label:3

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):314.4. Packing group:IIHazard label:3

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):314.4. Packing group:IIHazard label:3

# **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.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H312 Harmful in contact with skin.
H319 Causes serious eye irritation.

H332 Harmful if inhaled.