#### according to UK REACH Regulation

# Revision date: 25.08.2022

Acetonitrile, Anhydrous Product code: K-504SIE-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 com  | pounds                        |
|--------------------------|-------------------------------|-------------------------------|
|                          | Biomedizinische Forschungsrea | genzien 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 | +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

Signal word:

**Pictograms:** 

**GB CLP Regulation** 

Danger



#### Hazard statements

| H225 | Highly flammable liquid and vapour. |
|------|-------------------------------------|
| H302 | Harmful if swallowed.               |
| H312 | Harmful in contact with skin.       |
| H332 | Harmful if inhaled.                 |
| H319 | Causes serious eye irritation.      |

#### **Precautionary statements**

P210

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

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|                           | Acetonitrile, Anhydrous   |             |
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| P280                      | smoking.<br>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  | Chemical name              |          |  |  |
|---------|--|----------------------------|----------|--|--|
|         | EC No  | Index No                   | REACH No |  |  |
|         | Classification (GB CLF   | Regulation)                |          |  |  |
| 75-05-8 | acetonitrile; cyanometh  | 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. L | imits, M-factors and ATE  |          |
| 75-05-8 | 200-835-2        | acetonitrile; cyanomethane  | 100 %    |
|         |                  | 0 = 11 mg/l (vapours); inhalation: LC50 = 11 mg/l (dusts or mists); dermal: LD50<br>al: 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**

# according to UK REACH Regulation

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### 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.

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

#### 8.1. Control parameters

#### 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 |
| Odour:          | Ether      |

# Changes in the physical state

# according to UK REACH Regulation

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|---|--|-------------|
| 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:<br>(at 25 °C)                        | 0.316 mPa·s  |             |
| Water solubility:<br>(at 20 °C)                           | easily soluble.                                      |             |
| Vapour pressure:<br>(at 20 °C)                            | 97 hPa   |             |
| Density (at 20 °C):                                       | 0,786 g/cm³  |             |

# **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<br>mg/kg  | 500     |         |        |        |  |  |
|         | dermal                     | LD50<br>mg/kg | 988     | 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<br>mg/l | 96 h Pimephales promelas | IUCLID |        |  |  |

# 12.3. Bioaccumulative potential

according to UK REACH Regulation

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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)

| 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:              | 11           |  |  |  |
| 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:              | 11           |  |  |  |
| 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:              | 11           |  |  |  |
| 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)       |              |                |             |
| 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

| Water hazard class (D):                  | 2 - obviously hazardous to water |
|--|----------------------------------|
| National regulatory information          |                                  |
| 2004/42/EC (VOC):                        | 100 % (786 g/l)                  |
| Entry 3, Entry 40, Entry 75              |                                  |
| Restrictions on use (REACH, annex XVII): |                                  |
| EU regulatory information                |                                  |

# 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.                 |
|      |                                     |