# according to UK REACH Regulation

# **Oxalic acid solution**

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

# 1.1. Product identifier

Oxalic acid solution

# 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; H302 Acute Tox. 4; H312 Acute Tox. 4; H332 Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

# 2.2. Label elements

### **GB CLP Regulation**

## Hazard components for labelling

acetonitrile; cyanomethane Danger

Signal word:

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 eve irritation.

#### Precautionary statements

recould not y cu	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
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.

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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**

# 3.2. Mixtures

### Hazardous components

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification (GB CLF	PRegulation)			
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				
144-62-7	oxalic acid			< 0.1 %	
	205-634-3	607-006-00-8			
	Acute Tox. 4, Acute Tox. 4; H312 H302				

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

Specific Co	nc. Limits, M-fa	ctors and ATE				
CAS No	EC No	Chemical name	Quantity			
	Specific Conc. Limits, M-factors and ATE					
75-05-8	200-835-2	acetonitrile; cyanomethane	95 - < 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					
144-62-7	205-634-3	oxalic acid	< 0.1 %			
	dermal: ATE =	= 1100 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

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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

#### 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

Maximum storage temperature: +30 °C

## **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
144-62-7	Oxalic acid	-	1		TWA (8 h)	WEL
		-	2		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:	
Colour:	
Lower explosion limits:	3 vol. %
Upper explosion limits:	17 vol. %
Flash point:	2 °C
Water solubility:	easily soluble.
(at 20 °C)	
Vapour pressure:	97 hPa
(at 20 °C)	
Density (at 20 °C):	0,786 g/cm³
9.2. Other information	
Other safety characteristics	
Viscosity / dynamic:	0.316 mPa·s
(at 25 °C)	

### **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.

# ATEmix calculated

ATE (oral) 500,1 mg/kg; ATE (dermal) 1100,1 mg/kg; ATE (inhalation vapour) 11,00 mg/l; ATE (inhalation dust/mist) 2,750 mg/l

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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				
144-62-7	oxalic acid						
	oral	ATE mg/kg	500				
	dermal	ATE mg/kg	1100				

### 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	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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

## 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### **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**

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Revision date: 27.07.2023 Land transport (ADR/RID)	Oxalic acid so Product code: PE		Page 6 of 7
Land transport (ADR/RID)			
Land transport (ADR/RID)			5
	UN 3286		
14.1. UN number or ID number:		TOXIC, CORROSIVE, N.O.S. (Acetonitril,	
14.2. UN proper shipping name:	Oxalsäure)	TOXIC, CORROSIVE, N.O.S. (Acelonium,	
14.3. Transport hazard class(es):	3		
14.4. Packing group:	U U		
Hazard label:	3+6.1+8		
Classification code:	FTC		
Special Provisions:	274		
Limited quantity:	1 L		
Excepted quantity:	E2		
Transport category:	2		
Hazard No:	368		
Tunnel restriction code:	D/E		
Inland waterways transport (ADN)			
14.1. UN number or ID number:	UN 3286		
14.2. UN proper shipping name:	FLAMMABLE LIQUID,	TOXIC, CORROSIVE, N.O.S. (Acetonitril,	
	Oxalsäure)		
14.3. Transport hazard class(es):	3		
14.4. Packing group:	II		
Hazard label:	3+6.1+8		
Classification code:	FTC		
Special Provisions:	274 802		
Limited quantity:	1 L		
Excepted quantity:	E2		
Marine transport (IMDG)			
14.1. UN number or ID number:	UN 3286		
14.2. UN proper shipping name:		TOXIC, CORROSIVE, N.O.S. (Acetonitrile, Oxalic	
	acid)		
14.3. Transport hazard class(es):	3		
14.4. Packing group:			
Hazard label:	3+6.1/8		
Special Provisions:	274		
Limited quantity:	1L		
Excepted quantity:	E2		
EmS:	F-E, S-C		
Air transport (ICAO-TI/IATA-DGR)			
14.1. UN number or ID number:	UN 3286		
14.2. UN proper shipping name:		TOXIC, CORROSIVE, N.O.S. (Acetonitrile, Oxalic	
44.2 Transment becaud class(se):	acid)		
14.3. Transport hazard class(es):	3		
<u>14.4. Packing group:</u> Hazard label:			
Limited quantity Passenger:	3+6.1 8 0.5 L		
Passenger LQ:	V340		
Excepted quantity:	E2		
IATA-packing instructions - Passenger:		52	
IATA-packing instructions - r assenger: IATA-max. quantity - Passenger:		L	
IATA-packing instructions - Cargo:		63	
IATA-max. quantity - Cargo:			
	-		

# SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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EU regulatory information	n	
Restrictions on use (REAC Entry 3, Entry 40, Entry		
2004/42/EC (VOC):	100 % (786 g/l)	
National regulatory inform	nation	
Water hazard class (D):	2 - obviously hazardous to water	
SECTION 16: Other inforn Classification for mixtures	nation and used evaluation method according to GB CLP Regulation	
Classification	Classification procedure	
Flam. Liq. 2; H225	On basis of test data	
Acute Tox. 4: H302	Calculation method	

Acute Tox. 4; H312	Calculation method	
Acute Tox. 4; H332	Calculation method	
Eye Irrit. 2; H319	Calculation method	
Relevant H and EUH state	ements (number and full text)	
H225	Highly flammable liquid and vapour.	

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.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)