according to UK REACH Regulation

Ethanol

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

1.1. Product identifier

Ethanol

CAS No: 64-17-5 Index No: 603-002-00-5 EC No: 200-578-6

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 +49 3528 4041 60

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225

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.

Precautionary statements

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.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water or shower.

P403+P235 Store in a well-ventilated place. Keep cool.

according to UK REACH Regulation

Ethanol

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SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

CAS No	Chemical name						
	EC No	EC No Index No REACH No					
	Classification (GB CLP Regulation)						
64-17-5	ethanol; ethyl alcohol	ethanol; ethyl alcohol					
	200-578-6	603-002-00-5					
	Flam. Liq. 2; H225						

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	Specific Conc. Limits, M-factors and ATE			
64-17-5	200-578-6 ethanol; ethyl alcohol				
	inhalation: LC50 = 95,6 mg/l (vapours); oral: LD50 = 6200 mg/kg				

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

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

After contact with eves

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

If swallowed, immediately drink: Water.

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.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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.

6.2. Environmental precautions

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

according to UK REACH Regulation

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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 protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Change contaminated clothing. Wash hands before breaks and after work. 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 in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

Hints on joint storage

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

Further information on storage conditions

Maximum storage temperature: + 30

Protect against: Light.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL

8.2. Exposure controls

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:	-114 °C
Boiling point or initial boiling point and	78 °C

boiling range:

Flash point: 12 °C

Lower explosion limits: 3,5 vol. %
Upper explosion limits: 15 vol. %
Vapour pressure: 58 hPa

(at 20 °C)

Vapour pressure: 293 hPa

(at 50 °C)

Density: 0,79 g/cm³

according to UK REACH Regulation

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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

CAS No	Chemical name						
	Exposure route Dose Species Source Method						
64-17-5	ethanol; ethyl alcohol	ethanol; ethyl alcohol					
	oral	LD50 mg/kg	6200	Rat	IUCLID		
	inhalation (4 h) vapour	LC50	95,6 mg/l	Rat	RTECS		

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						
64-17-5	ethanol; ethyl alcohol						
	Acute crustacea toxicity	EC50 9268 - 14221 mg/l	48 h	Daphnia magna	IUCLID		

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol; ethyl alcohol	-0,31

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

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

Water (with cleaning agent). Completely emptied packages can be recycled.

according to UK REACH Regulation

Ethanol

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SECTION 14: Transport information

 4		R/RID)

14.1. UN number or ID number:	UN 1170
14.2. UN proper shipping name:	Ethanol
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Special Provisions:	144 601
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/F

Inland waterways transport (ADN)

UN 1170 14.1. UN number or ID number: Ethanol 14.2. UN proper shipping name: 14.3. Transport hazard class(es): 3 Ш 14.4. Packing group: Hazard label: 3 F1 Classification code: Special Provisions: 144 601 Limited quantity: 1 L Excepted quantity: F2

Marine transport (IMDG)

UN 1170 14.1. UN number or ID number: Ethanol 14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label: 3 **Special Provisions:** 144 Limited quantity: 1 L Excepted quantity: E2 EmS: F-E. S-D

Segregation group: ammonium compounds

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:UN 117014.2. UN proper shipping name:Ethanol14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3

Special Provisions: A3 A58 A180

Limited quantity Passenger: 1 L
Passenger LQ: Y341
Excepted quantity: E2

IATA-packing instructions - Passenger:353IATA-max. quantity - Passenger:5 LIATA-packing instructions - Cargo:364IATA-max. quantity - Cargo:60 L

SECTION 15: Regulatory information

according to UK REACH Regulation

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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

2004/42/EC (VOC): 99,5 %

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.