

Safety Data Sheet

according to UK REACH Regulation

Flumazenil

Revision date: 24.03.2022

Product code: 1710

Page 1 of 5

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Flumazenil

Further trade names

4H-Imidazol[1,5-a][1,4]benzodiazepine-3-carboxylic acid, 8-fluoro-5,6-dihydro-5-methyl-6-oxo, ethylester

Synonyms:

8-Fluoro-5,6-dihydro-5-methyl-6-oxo-4H-Imidazo[1,5-a][1,4]benzo-diazepine-3-carboxylic acid ethyl ester; FMZ;
Ro 15-1788; Anexate; Flumazenil; Flumazepil; Lanexat

CAS No: 78755-81-4

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Reference standard for [11C]Flumazenil

Reference standard for 5-[18F]Flumazenil ([18F]FEF)

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**

Repr. 2; H361f

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation**

Signal word: Warning

Pictograms:

**Hazard statements**

H361f Suspected of damaging fertility.

Precautionary statements

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

SECTION 3: Composition/information on ingredients

Safety Data Sheet

according to UK REACH Regulation

Flumazenil

Revision date: 24.03.2022

Product code: 1710

Page 2 of 5

3.1. Substances**Chemical characterization**

4H-Imidazol[1,5-a][1,4]benzodiazepine-3-carboxylic acid, 8-fluoro-5,6-dihydro-5-methyl-6-oxo, ethylester

Sum formula: C₁₅H₁₄FN₃O₃

Molecular weight: 303.29

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
78755-81-4	Flumazenil			95 - < 100 %
	Repr. 2; H361f			

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		
78755-81-4		Flumazenil	95 - < 100 %
	oral: LD50 = 2000 mg/kg		

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Provide fresh air. Medical treatment necessary.

After contact with skin

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

After contact with eyes

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

After ingestion

If swallowed, immediately drink: Water. Seek medical advice immediately.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Suitable extinguishing media: Foam. Extinguishing powder. Carbon dioxide (CO₂). Atomized water.**5.2. Special hazards arising from the substance or mixture**

In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

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

Additional information

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**

Provide adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

Safety Data Sheet

according to UK REACH Regulation

Flumazenil

Revision date: 24.03.2022

Product code: 1710

Page 3 of 5

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal. Clear contaminated areas thoroughly.

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 dust. When using do not eat, drink, smoke, sniff.

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 dry. Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Keep container in a well-ventilated place.

Further information on storage conditions

storage temperature:

of °C: 2

up to °C: 8

Protect against: Light.

Store under (Gas): argon. Nitrogen.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Single-use gloves. NBR (Nitrile rubber).

Skin protection

Lab apron. Chemical resistant safety shoes.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:

solid

Colour:

whitish

Changes in the physical state

Melting point/freezing point:

198 - 204 °C

Safety Data Sheet

according to UK REACH Regulation

Flumazenil

Revision date: 24.03.2022

Product code: 1710

Page 4 of 5

Water solubility:

The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

dimethylsulphoxide (DMSO). Ethanol

SECTION 10: Stability and reactivity**10.6. Hazardous decomposition products**Carbon dioxide. Carbon monoxide. Nitrogen oxides (NO_x). fluorhydric acid.**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
78755-81-4	Flumazenil				
	oral	LD50 mg/kg	2000	Rabbit	

Carcinogenic/mutagenic/toxic effects for reproduction

May impair fertility.

SECTION 12: Ecological information**12.3. Bioaccumulative potential****Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
78755-81-4	Flumazenil	1,9

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.

SECTION 14: Transport information**Other applicable information**

Not a hazardous material with respect to these transportation regulations.

SECTION 15: Regulatory information

Safety Data Sheet

according to UK REACH Regulation

Flumazenil

Revision date: 24.03.2022

Product code: 1710

Page 5 of 5

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

Restrictions on use (REACH, annex XVII):

Entry 75

National regulatory information

Water hazard class (D): 3 - highly hazardous to water

SECTION 16: Other information**Relevant H and EUH statements (number and full text)**

H361f Suspected of damaging fertility.