

## Safety Data Sheet

according to UK REACH Regulation

### Endothelin-1 (human, bovine, dog, mouse, porcine, rat) trifluoroacetate salt

Revision date: 18.02.2025

Product code: 4048904

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

### 1.1. Product identifier

Endothelin-1 (human, bovine, dog, mouse, porcine, rat) trifluoroacetate salt

CAS No: 117399-94-7

EC No: 687-671-9

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

Laboratory chemicals

### 1.3. Details of the supplier of the safety data sheet

Company name: Bachem (UK) Ltd.

Delph Court

Street: Sullivans Way, St. Helens

Place: GB Merseyside WA9 5GL

Telephone: +44 1744 61 2108

Telefax: +44 1744 73 0064

E-mail (Contact person): msds@bachem.com

Responsible Department: Department: Global Marketing

### 1.4. Emergency telephone number:

+41 44 251 51 51 (Tox Info Suisse)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Acute Tox. 3; H331

Acute Tox. 3; H311

Acute Tox. 3; H301

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### GB CLP Regulation

Signal word: Danger

Pictograms:



#### Hazard statements

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

#### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container to an appropriate recycling or disposal facility.

### 2.3. Other hazards

No information available.

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## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Sum formula: C109H159N25O32S5  
Molecular weight: 2491.94 g/mol

#### Relevant ingredients

| CAS No      | Chemical name  |          |          | Quantity |
|-------------|--|----------|----------|----------|
|             | EC No  | Index No | REACH No |          |
|             | Classification (GB CLP Regulation)   |          |          |          |
| 117399-94-7 | Endothelin-1 (human, bovine, dog, mouse, porcine, rat) trifluoroacetate salt |          |          | 100 %    |
|             | 687-671-9  |          |          |          |
|             | Acute Tox. 3, Acute Tox. 3, Acute Tox. 3; H331 H311 H301                     |          |          |          |

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  |          |
| 117399-94-7 | 687-671-9 | Endothelin-1 (human, bovine, dog, mouse, porcine, rat) trifluoroacetate salt  | 100 %    |
|             |           | inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0.5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: ATE = 100 mg/kg |          |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Seek medical advice immediately.

#### After contact with skin

Rinse cautiously with water for several minutes. Seek medical advice immediately.

#### After contact with eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

IF SWALLOWED: rinse mouth. Never give anything by mouth to an unconscious person or a person with cramps. Seek medical advice immediately.

### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Dry extinguishing powder

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#### Unsuitable extinguishing media

No information available.

#### **5.2. Special hazards arising from the substance or mixture**

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Sulphur dioxide (SO<sub>2</sub>)

#### **5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

#### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### SECTION 6: Accidental release measures

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **General advice**

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Do not breathe dust/fume/gas/mist/vapours/spray.

##### **For non-emergency personnel**

Remove persons to safety. Use personal protection equipment.

##### **For emergency responders**

Wear personal protection equipment (refer to section 8).

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Cover drains.

#### **6.3. Methods and material for containment and cleaning up**

##### **For containment**

Stop leak if safe to do so.

##### **For cleaning up**

Collect spillage. Avoid dust formation.

##### **Other information**

Clean contaminated articles and floor according to the environmental legislation.

#### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Do not breathe dust/fume/gas/mist/vapours/spray. Keep container tightly closed and dry.

##### **Advice on protection against fire and explosion**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

##### **Advice on general occupational hygiene**

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink or smoke.

##### **Further information on handling**

No information available.

#### **7.2. Conditions for safe storage, including any incompatibilities**

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#### Requirements for storage rooms and vessels

Store in a dry place. Store in a closed container.

#### Hints on joint storage

Do not store together with:

Food and feedingstuffs

#### Further information on storage conditions

Protect against:

Heat, Humidity

Recommended storage temperature: < -15 °C

#### 7.3. Specific end use(s)

Laboratory chemicals

### 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

Provide adequate ventilation as well as local exhaustion at critical locations.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection:

Eye glasses with side protection

goggles

##### Hand protection

Wear protective gloves.

Suitable material: NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### Skin protection

Protective clothing

##### Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.:

Self-contained respirator (breathing apparatus)

Combination filtering device

##### Thermal hazards

No information available.

##### Environmental exposure controls

Avoid release to the environment.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|                  |                                    |
|------------------|------------------------------------|
| Physical state:  | solid (Powder)                     |
| Colour:          | white                              |
| Odour:           | This information is not available. |
| Odour threshold: | This information is not available. |

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|   |                   |
|---|-------------------|
| Melting point/freezing point:                             | No data available |
| Boiling point or initial boiling point and boiling range: | No data available |
| Flammability:   | No data available |
| Lower explosion limits:                                   | No data available |
| Upper explosion limits:                                   | No data available |
| Flash point:  | No data available |
| Auto-ignition temperature:                                | No data available |
| Decomposition temperature:                                | No data available |
| pH-Value:   | No data available |
| Viscosity / kinematic:                                    | No data available |
| Water solubility:<br>(at 25 °C)                           | 1 g/l             |
| Solubility in other solvents<br>1% Acetic acid / Water    |                   |
| Partition coefficient n-octanol/water:                    | No data available |
| Vapour pressure:  | No data available |
| Density:  | No data available |
| Bulk density:   | No data available |
| Relative vapour density:                                  | No data available |
| Particle characteristics:                                 | No data available |

#### **9.2. Other information**

No information available.

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

No data available

#### **10.2. Chemical stability**

The substance is chemically stable under recommended conditions of storage, use and temperature.

#### **10.3. Possibility of hazardous reactions**

No data available

#### **10.4. Conditions to avoid**

No data available

#### **10.5. Incompatible materials**

No data available

#### **10.6. Hazardous decomposition products**

Thermal decomposition can lead to the escape of irritating gases and vapours.

#### **Further information**

No data available

### SECTION 11: Toxicological information

#### **11.1. Information on hazard classes as defined in GB CLP Regulation**

##### **Acute toxicity**

- Toxic if swallowed.
- Toxic in contact with skin.
- Toxic if inhaled.

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| CAS No      | Chemical name  |               |         |        |        |
|-------------|--|---------------|---------|--------|--------|
|             | Exposure route   | Dose          | Species | Source | Method |
| 117399-94-7 | Endothelin-1 (human, bovine, dog, mouse, porcine, rat) trifluoroacetate salt |               |         |        |        |
|             | oral   | ATE 100 mg/kg |         |        |        |
|             | dermal   | ATE 300 mg/kg |         |        |        |
|             | inhalation vapour  | ATE 3 mg/l    |         |        |        |
|             | inhalation dust/mist   | ATE 0.5 mg/l  |         |        |        |

#### Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

#### Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Information on likely routes of exposure

oral, dermal, inhalative, Eye contact.

#### Specific effects in experiment on an animal

No data available

#### Practical experience

No data available

### 11.2. Information on other hazards

#### Endocrine disrupting properties

No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.

### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

### 12.4. Mobility in soil

The product has not been tested.

### 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

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This substance does not have endocrine disrupting properties with respect to non-target organisms.  
The product has not been tested.

#### **12.7. Other adverse effects**

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

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 2811

##### **14.2. UN proper shipping name:**

TOXIC SOLID, ORGANIC, N.O.S. (ENDOTHELIN-1 (HUMAN, BOVINE, DOG, MOUSE, PORCINE, RAT) TRIFLUOROACETATE SALT)

##### **14.3. Transport hazard class(es):**

6.1

##### **14.4. Packing group:**

III

Hazard label:

6.1



Classification code:

T2

Special Provisions:

274 614

Limited quantity:

5 kg

Excepted quantity:

E1

Transport category:

2

Hazard No:

60

Tunnel restriction code:

E

#### **Inland waterways transport (ADN)**

##### **14.1. UN number or ID number:**

UN 2811

##### **14.2. UN proper shipping name:**

TOXIC SOLID, ORGANIC, N.O.S. (ENDOTHELIN-1 (HUMAN, BOVINE, DOG, MOUSE, PORCINE, RAT) TRIFLUOROACETATE SALT)

##### **14.3. Transport hazard class(es):**

6.1

##### **14.4. Packing group:**

III

Hazard label:

6.1



Classification code:

T2

Special Provisions:

274 614 802

Limited quantity:

5 kg

Excepted quantity:

E1

#### **Marine transport (IMDG)**

##### **14.1. UN number or ID number:**

UN 2811

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|  |   |
|--|---|
| <b>14.2. UN proper shipping name:</b>    | TOXIC SOLID, ORGANIC, N.O.S. (ENDOTHELIN-1 (HUMAN, BOVINE, DOG, MOUSE, PORCINE, RAT) TRIFLUOROACETATE SALT) |
| <b>14.3. Transport hazard class(es):</b> | 6.1   |
| <b>14.4. Packing group:</b>              | III   |
| Hazard label:                            | 6.1<br>                    |
| Marine pollutant:                        | -   |
| Special Provisions:                      | 223, 274  |
| Limited quantity:                        | 5 kg  |
| Excepted quantity:                       | E1  |
| EmS:                                     | F-A, S-A  |

#### Air transport (ICAO-TI/IATA-DGR)

|  |   |
|--|---|
| <b>14.1. UN number or ID number:</b>     | UN 2811   |
| <b>14.2. UN proper shipping name:</b>    | TOXIC SOLID, ORGANIC, N.O.S. (ENDOTHELIN-1 (HUMAN, BOVINE, DOG, MOUSE, PORCINE, RAT) TRIFLUOROACETATE SALT) |
| <b>14.3. Transport hazard class(es):</b> | 6.1   |
| <b>14.4. Packing group:</b>              | III   |
| Hazard label:                            | 6.1<br>                  |
| Special Provisions:                      | A3 A5   |
| Limited quantity Passenger:              | 10 kg   |
| Passenger LQ:                            | Y645  |
| Excepted quantity:                       | E1  |
| IATA-packing instructions - Passenger:   | 670   |
| IATA-max. quantity - Passenger:          | 100 kg  |
| IATA-packing instructions - Cargo:       | 677   |
| IATA-max. quantity - Cargo:              | 200 kg  |

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Warning: Toxic if swallowed, in contact with skin or if inhaled.

#### 14.7. Maritime transport in bulk according to IMO instruments

No information available.

### SECTION 15: Regulatory information

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

##### EU regulatory information

Information according to Directive 2012/18/EU (SEVESO III): H2 ACUTE TOXIC

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

##### Additional information

Observe in addition any national regulations!

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#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Abbreviations and acronyms

Acute Tox: Acute toxicity  
 CLP: Classification, labelling and Packaging  
 REACH: Registration, Evaluation and Authorization of Chemicals  
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
 UN: United Nations  
 CAS: Chemical Abstracts Service  
 M-Factor: Multiplication Factor  
 DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 LL50: Lethal loading, 50%  
 EL50: Effect loading, 50%  
 EC50: Effective Concentration 50%  
 ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
 IMDG: International Maritime Code for Dangerous Goods  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 IATA: International Air Transport Association  
 ICAO: International Civil Aviation Organization  
 TI: Technical Instructions  
 DGR: Dangerous Goods Regulations  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 VOC: Volatile Organic Compounds  
 EG or EC: European Community  
 IE: Industrial Emissions  
 SVHC: Substance of Very High Concern

#### Key literature references and sources for data

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

#### Relevant H and EUH statements (number and full text)

|                |   |
|----------------|---|
| H301           | Toxic if swallowed.                                     |
| H301+H311+H331 | Toxic if swallowed, in contact with skin or if inhaled. |
| H311           | Toxic in contact with skin.                             |
| H331           | Toxic if inhaled.                                       |

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#### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.