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

1.1. Product identifier
Octaarginine trifluoroacetate salt
CAS No: 148796-86-5

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
Sullivans Way, St. Helens
GB Merseyside WA9 5GL
Telephone: +44 1744 61 2108
Telefax: +44 1744 73 0064
Responsibility: 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
Regulation (EC) No. 1272/2008
This substance is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements
Hazard components for labelling

SECTION 3: Composition/information on ingredients

3.1. Substances
Sum formula: C48H98N32O9
Molecular weight: 1267.52

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. Get medical advice/attention if you feel unwell.

After contact with skin
Rinse cautiously with water for several minutes. If medical advice is needed, have product container or label at hand.

After contact with eyes
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion
IF SWALLOWED: rinse mouth. Never give anything by mouth to an unconscious person or a person with cramps. Get medical advice/attention if you feel unwell.
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**
No information available.

### SECTION 5: Firefighting measures

5.1. **Extinguishing media**

- **Suitable extinguishing media**
  - Dry extinguishing powder

- **Unsuitable extinguishing media**
  - No information available.

5.2. **Special hazards arising from the substance or mixture**
Carbon monoxide Carbon dioxide (CO2) Nitrogen oxides (NOx)

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**
Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Do not breathe dust/fume/gas/mist/vapours/spray. Remove persons to safety.

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**
Collect spillage. Avoid dust formation.

6.4. **Reference to other sections**
Safe handling: see section 7
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.

- **Further information on handling**
  No information available.

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

- **Requirements for storage rooms and vessels**
  Recommended storage temperature: < -15 °C

- **Advice on storage compatibility**
  Do not store together with:
  - Food and feedingstuffs

- **Further information on storage conditions**
  Protect against:
  - Frost
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.

Protective and hygiene measures
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.

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) (DIN EN 133)
Combination filtering device (EN 14387)

Environmental exposure controls
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>This information is not available</td>
</tr>
<tr>
<td>pH-Value</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Changes in the physical state

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Sublimation point</td>
<td>No data available</td>
</tr>
<tr>
<td>Softening point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Sustaining combustion</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Explosive properties
No data available

Lower explosion limits: No data available
Upper explosion limits: No data available
Ignition temperature: No data available
Decomposition temperature: No data available

Oxidizing properties
No data available

Vapour pressure: No data available
Density: No data available
Bulk density: No data available
Water solubility: 1 g/L
(at 25 °C)
Partition coefficient: No data available
Viscosity / dynamic: No data available
Viscosity / kinematic: No data available
Vapour density: No data available
Evaporation rate: No data available
Solvent content: No data available

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is stable under storage at normal ambient temperatures.

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 toxicological effects

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

Irritation and corrosivity
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
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.

SECTION 12: Ecological information

12.1. Toxicity
The product has not been tested.

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
The product has not been tested.

12.6. Other adverse effects
No information available.

Further information
Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal
Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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)

14.1. UN number:
No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:
No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):
No dangerous good in sense of this transport regulation.

14.4. Packing group:
No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number:
No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:
No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):
No dangerous good in sense of this transport regulation.

14.4. Packing group:
No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number:
No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:
No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):
No dangerous good in sense of this transport regulation.

14.4. Packing group:
No dangerous good in sense of this transport regulation.
### 14.1. UN number:
No dangerous good in sense of this transport regulation.

### 14.2. UN proper shipping name:
No dangerous good in sense of this transport regulation.

### 14.3. Transport hazard class(es):
No dangerous good in sense of this transport regulation.

### 14.4. Packing group:
No dangerous good in sense of this transport regulation.

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

| 14.1. UN number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

### 14.5. Environmental hazards
- **ENVIRONMENTALLY HAZARDOUS:** no

### 14.6. Special precautions for user
No dangerous good in sense of this transport regulation.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No dangerous good in sense of this transport regulation.

### SECTION 15: Regulatory information

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

National regulatory information

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

### SECTION 16: Other information

**Abbreviations and acronyms**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- EC50: Effect concentration, 50 percent
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative

**Further Information**
The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.