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Revision: 21.11.2011  
Printing date: 07.07.2016

## 01 Identification of the substance/mixture and of the company/undertaking

- Product identifier
- Trade name:  
Boc-Glu(OBzl)-OH  
5-benzyl N-[(1,1-dimethylethoxy)carbonyl]-L-glutamate
- Article number:  
new: 4000651      old: A-1640
- CAS Number:  
13574-13-5
- EC number:  
237-007-5
- Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation  
Laboratory chemicals
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Bachem AG  
Hauptstrasse 144  
CH-4416 Bubendorf  
Switzerland  
E-mail msds@bachem.com  
Tel +41 58 595 2021  
Fax +41 58 595 2040
- Further information obtainable from:  
Department: Marketing
- Emergency telephone number:  
+41 44 251 51 51 (Tox Info Suisse)

## \* 02 Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008  
Void
- Label elements
- Labelling according to Regulation (EC) No 1272/2008  
Void
- Signal word  
Void
- Hazard statements  
Void
- Other hazards
- Results of PBT and vPvB assessment
- PBT:  
Not applicable.
- vPvB:  
Not applicable.

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## 03 Composition/information on ingredients

- Chemical characterization: Substances

| <b>CAS No.</b>           | <b>Description</b> |
|--------------------------|--------------------|
| 13574-13-5               | Boc-Glu(OBzl)-OH   |
| Identification number(s) |                    |
| EC number:               |                    |
| 237-007-5                |                    |
| RTECS Number:            |                    |
| -                        |                    |

## 04 First aid measures

- After inhalation:  
Supply fresh air; consult doctor in case of complaints.
- After skin contact:  
Immediately wash with water and soap and rinse thoroughly.
- After eye contact:  
Rinse opened eye for several minutes under running water.
- After swallowing:  
Call a doctor immediately.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed  
No further relevant information available.
- Indication of any immediate medical attention and special treatment needed  
No further relevant information available.

## 05 Firefighting measures

- Suitable extinguishing agents:  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture  
No further relevant information available.
- Advice for firefighters
- Protective equipment:  
No special measures required.

## 06 Accidental release measures

- Personal precautions, protective equipment and emergency procedures  
Not required.
- Environmental precautions:  
No special measures required.
- Methods and material for containment and cleaning up:  
Pick up mechanically.

## 07 Handling and storage

- Handling:
- Precautions for safe handling  
Prevent formation of dust.
- Information about fire - and explosion protection:  
No special measures required.
- Storage:
- Requirements to be met by storerooms and receptacles:  
No special requirements.
- Information about storage in one common storage facility:  
Store away from foodstuffs.
- Further information about storage conditions:

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- Store in dry conditions.
- Recommended storage temperature:  
+5 +/- 3 °C
- Specific end use(s)  
No further relevant information available.

## 08 Exposure controls/personal protection

- Ingredients with limit values that require monitoring at the workplace:

**CAS No.**                      **Designation of material**  
Not required.

- Additional information:  
The lists valid during the making were used as basis.
- Personal protective equipment:
- General protective and hygienic measures:  
The usual precautionary measures are to be adhered to when handling chemicals.
- Respiratory protection:  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.  
Use suitable respiratory protective device in case of insufficient ventilation.
- Protection of hands:  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
Protective gloves
- Material of gloves  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- Penetration time of glove material  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection:  
Safety glasses

## 09 Physical and chemical properties

### General Information

#### Appearance:

|                         |                  |
|-------------------------|------------------|
| <b>Form:</b>            | Powder           |
| <b>Colour:</b>          | White            |
| <b>Odour:</b>           | Nearly odourless |
| <b>Odour threshold:</b> | Not determined.  |
| <b>Molecular Weight</b> | 337,3700 g/mol   |

#### Change in condition

|                                       |                 |
|---------------------------------------|-----------------|
| <b>Melting point/Melting range:</b>   | 71 °C           |
| <b>Boiling point/Boiling range:</b>   | Undetermined.   |
| <b>Flash point:</b>                   | Not applicable. |
| <b>Flammability (solid, gaseous):</b> | Not applicable. |
| <b>Ignition temperature:</b>          |                 |
| <b>Decomposition temperature:</b>     | Not determined. |
| <b>Self-igniting:</b>                 | Not determined. |
| <b>Danger of explosion:</b>           | Not determined. |
| <b>Explosion limits:</b>              |                 |
| <b>Lower:</b>                         | Not determined. |
| <b>Upper:</b>                         | Not determined. |
| <b>Vapour pressure:</b>               | Not determined. |
| <b>Density:</b>                       | Not determined. |

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|                                                |                                            |
|------------------------------------------------|--------------------------------------------|
| <b>Solubility in / Miscibility with water:</b> | Not determined.                            |
| <b>Viscosity:</b>                              |                                            |
| <b>Dynamic:</b>                                | Not determined.                            |
| <b>Kinematic:</b>                              | Not determined.                            |
| <b>Other information</b>                       | No further relevant information available. |

## 10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:  
No decomposition if used according to specifications.
- Possibility of hazardous reactions  
No dangerous reactions known.
- Conditions to avoid  
No further relevant information available.
- Incompatible materials:  
No further relevant information available.
- Hazardous decomposition products:  
No dangerous decomposition products known.

## 11 Toxicological information

- Acute toxicity:  
No further relevant information available.
- Primary irritant effect:
- on the skin:  
No further relevant information available.
- on the eye:  
No further relevant information available.
- Sensitization:  
No sensitizing effects known.
- Additional toxicological information:  
The substance is not subject to classification according to the latest version of the EU lists.

## 12 Ecological information

- Aquatic toxicity:  
No further relevant information available.
- Persistence and degradability  
No further relevant information available.
- Behaviour in environmental systems:
- Bioaccumulative potential  
No further relevant information available.
- Mobility in soil  
No further relevant information available.
- Additional ecological information:
- General notes:  
Not known to be hazardous to water.
- Results of PBT and vPvB assessment
- PBT:  
Not applicable.
- vPvB:  
Not applicable.
- Other adverse effects  
No further relevant information available.

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## 13 Disposal considerations

- Waste treatment methods
- Waste disposal key:  
18 02 06
- Uncleaned packaging:
- Recommendation:  
Disposal must be made according to official regulations.

## 14 Transport information

- ADR/RID class:** -
- IMDG Class:** -
- ICAO/IATA Class:** -
- Environmental hazards:  
Not applicable.
  - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
Not applicable.

## 15 Regulatory information

- National regulations:
- Waterhazard class:  
Generally not hazardous for water. Self-assessment
- Chemical safety assessment:  
A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS:  
Department: Marketing
- 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  
ICAO: International Civil Aviation Organisation  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
RTECS: Registry of Toxic Effects of Chemical Substances  
WGK: Wassergefährdungsklasse  
vPvB: very Persistent and very Bioaccumulative
- \* Data compared to the previous version altered.