

1784700

Revision: 23.02.2016
Printing date: 07.07.2016

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

- Product identifier
- Trade name:
(Asp³⁷¹)-Tyrosinase (369-377) (human) Acetate
- Article number:
new: 4086336 old: H-7732
- CAS Number:
168650-46-2
- 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.

03 Composition/information on ingredients

- Chemical characterization: Substances

CAS No.	Description
168650-46-2	(Asp ³⁷¹)-Tyrosinase (369-377) (human) Acetate

- Identification number(s)
- EC number:
-
- RTECS Number:
-

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04 First aid measures

- Description of 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

- Extinguishing media
- Suitable extinguishing agents:
CO₂, 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.
- Reference to other sections

07 Handling and storage

- Handling:
- Precautions for safe handling
Prevent formation of dust.
- Information about fire - and explosion protection:
No special measures required.
- Conditions for safe storage, including any incompatibilities
- 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:
Store in dry conditions.
- Recommended storage temperature:
< -15 °C
- Specific end use(s)
No further relevant information available.

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08 Exposure controls/personal protection

- Control parameters
 - 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.
 - Exposure controls
 - 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

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Lyophilisate
Colour:	White
Odour:	Nearly odourless
Odour threshold:	Not determined.
pH-value:	Not determined.

Change in condition

Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Self-igniting: Not determined.

Danger of explosion: Not determined.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapour pressure: Not determined.

Density: Not determined.

Solubility in / Miscibility with

water: at 25 °C 1,00 g/l

Viscosity:

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Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- 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

- Information on toxicological effects
- 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 sensitising effects known.
- Additional toxicological information:
The substance is not subject to classification according to the latest version of the EU lists.

12 Ecological information

- Toxicity
- 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

- UN-Number
ADR Void
IMDG Void
IATA Void
- UN proper shipping name
ADR Void
IMDG Void
IATA Void
- Transport hazard class(es)
ADR
Class Void
IMDG
Class Void
IATA
Class Void
- Packing group
ADR Void
IMDG Void
IATA Void
- Environmental hazards:
Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.
- Transport/Additional information:
Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- 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

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Safety data sheet
according to 1907/2006/EC, Article 31

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- 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 Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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