

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

2063600

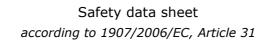
Revision: 05.04.2017 Printing date: 05.04.2017

1 i •	Product identifier
	Trade name:
	H-Glu(Gly-Gly-OH)-OH
•	Article number:
	new: 4000347 old: H-3180
•	CAS Number:
	13640-39-6
	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)
2	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.
3 (Composition/information on ingredients

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

GB ·





BACHEM

Revision: 05.04.2017 Printing date: 05.04.2017

PRODUCT : H-Glu(Gly-Gly-OH)-OH (Contd. of page 1) 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.

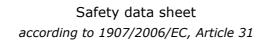
06 Accidental release measures

- 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.





BACHEM

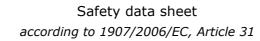
Revision: 05.04.2017 Printing date: 05.04.2017

(Contd. on page 4)

 Exposure controls/personal protection Control parameters Ingredients with limit values that require monitoring at the workplace: Additional information: The lists valid during the making were used as basis. Exposure controls Personal protective equipment: General 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/ the chemical mixture. Selection of the glove material on consideration of the peretration times, rates of diffusion and the degradation Protective gloves Material of gloves 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 		(Contd. of page 2)
 Ingredients with limit values that require monitoring at the workplace: 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/ 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 	8 Exposure controls/personal	protection
 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 gloves 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 	Control parameters	
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/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Protective 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	 Ingredients with limit values that req 	uire monitoring at the workplace:
 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/ 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 	Additional information:	
 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/ 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 	The lists valid during the making were us	ed as basis.
 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 	Exposure controls	
 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/ 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 	 Personal protective equipment: 	
 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 		
 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 		be adhered to when handling chemicals.
 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 	1 21	
 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 	respiratory protective device.	
 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 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 		e in case of insufficient ventilation.
 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 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 		a and resident to the product/the substance/the properties
 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 	•	
 Protective gloves Material of 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 	-	
 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 	•	
 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 	•	
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		not only depend on the material, but also on further marks of quality and varies from
Eye protection: Safety glasses	 Penetration time of glove material 	
Safety glasses	The exact break through time has to be f	ound out by the manufacturer of the protective gloves and has to be observed.
	Safety glasses	
Physical and chemical properties	9 Physical and chemical prope	rties
formation on basic physical and chemical properties		

· · · · · · · · · · · · · · · · · · ·	
General Information	
Appearance:	
Form:	Powder
Colour:	Whitish
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 ℃ 50,00 g/l
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.





BACHEM

Revision: 05.04.2017 Printing date: 05.04.2017

(Contd. of page 3)

PRODUCT : H-Glu(Gly-Gly-OH)-OH

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.

GB

(Contd. on page 5)



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

2063600

Revision: 05.04.2017 Printing date: 05.04.2017

PRODUCT : H-Glu(Gly-Gly-OH)-OH (Contd. of page 4) 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 ΙΑΤΑ Void · UN proper shipping name ADR Void IMDG Void ΙΑΤΑ Void Transport hazard class(es)

ADR	
Class	Void
IMDG	
Class	Void
ΙΑΤΑ	
Class	Void
 Packing group 	
ADR	Void
IMDG	Void
ΙΑΤΑ	Void
 Environmental hazards: 	
Not applicable.	
 Transport in bulk according to A Not applicable. 	nnex II of MARPOL73/78 and the IBC Code

 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.
- Chemical safety assessment:
- A Chemical Safety Assessment has not been carried out.

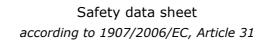
16 Other information

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

(Contd. on page 6)





2063600

BACHEM

Revision: 05.04.2017 Printing date: 05.04.2017

	(Contd. of page 5)
•	Abbreviations and acronyms:
	ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the Internationa
	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
•	* Data compared to the previous version altered.