

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

Printing date 10.01.2015

Version number 3

Revision: 10.01.2015

1.1 Product identifier	
Trade name: glutamic acid	
Article number: 2077-06	
CAS Number:	
56-86-0	
EC number:	
200-293-7	
1.2 Relevant identified uses of the substance or mix No further relevant information available.	cture and uses advised against
Application of the substance / the mixture : For La	boratory, Research or Manufacturing use.
1.3 Details of the supplier of the safety data sheet	
Manufacturer/Supplier:	
Avantor Performance Materials B.V.	<i>Tel:(+31) (0)570 - 687500</i>
P.O.Box 1	Fax: (+31) (0)570 - 687574
7400 AA Deventer	E-mail : jtbaker.nl@avantormaterials.con
The Netherlands	y
Informing department:	
<i>E-mail : pawel.skiba@avantormaterials.com</i>	
Avantor Performance Materials Sales Office Tel.: +	31(0) 570 687500
1.4 Emergency telephone number:	
Environment Health & Safety department	
during normal opening times (8 am till 5.30 pm) tel	(+31)(0) 570 687500

SECTION 2: Hazards identification

 \cdot 2.1 Classification of the substance or mixture

• *Classification according to Regulation (EC) No 1272/2008* The substance is not classified according to the CLP regulation.

• Classification according to Directive 67/548/EEC or Directive 1999/45/EC void • Information concerning particular hazards for human and environment: void

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008 Void

· Hazard pictograms Void

- · Signal word Void
- · Hazard statements Void
- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.1 Chemical characterisation: Substances
- · CAS No. Designation:
- 56-86-0 glutamic acid
- Identification number(s):
- EC number: 200-293-7

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information No special measures required.

• After inhalation Supply fresh air; consult doctor in case of symptoms.

• After skin contact The product is not skin irritating.

· After eye contact Rinse opened eye for several minutes under running water.

(Contd. on page 2)



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

Version number 3

Revision: 10.01.2015

Printing date 10.01.2015

Trade name: glutamic acid

(Contd. of page 1)

- After swallowing In case of persistent symptoms consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available. • 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

· Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

- For safety reasons unsuitable extinguishing agents Water with a full water jet.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures Not required.

- \cdot **6.2 Environmental precautions:** No special measures required.
- 6.3 Methods and material for containment and cleaning up: Collect mechanically.
- · 6.4 Reference to other sections
- No dangerous materials are released.
- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage

•7.1 Precautions for safe handling No special precautions necessary if used correctly.

- · Information about protection against explosions and fires: no special requirements
- ·7.2 Conditions for safe storage, including any incompatibilities

· Storage

- Requirements to be met by storerooms and containers: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- •7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Components with critical values that require monitoring at the workplace:
- Additional information: The lists that were valid during the compilation were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment
- \cdot General protective and hygienic measures
- The usual precautionary measures should be adhered to in handling the chemicals.
- **Breathing equipment:** Not required.
- 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



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

Version number 3

Revision: 10.01.2015

(Contd. of page 2)

Trade name: glutamic acid

Printing date 10.01.2015

· 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Not required.

SECTION 9: Physical and chemical properties

General Information		
Appearance:		
Form:	Crystalline	
Colour:	White	
Smell:	Odourless	
Odour threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition		
Melting point/Melting range:	$0 \ ^{\circ}C$	
Boiling point/Boiling range:	Not determined	
Flash point:	Not applicable	
Inflammability (solid, gaseous) Ignition temperature:	Product is not inflammable.	
Decomposition temperature:	Not determined.	
Self-inflammability:	Not determined.	
Danger of explosion:	Product is not explosive.	
Critical values for explosion:	1	
Lower:	Not determined.	
Upper:	Not determined.	
Steam pressure:	Not applicable.	
Density at 20 °C	$0.88 \ g/cm^3$	
Relative density	Not determined.	
Vapour density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Not determined.	
Partition coefficient (n-octanol/wat	ter): Not determined.	
Viscosity:		
dynamic:	Not applicable.	
kinematic:	Not applicable.	
9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

• Thermal decomposition / conditions to be avoided: Heat, boiling temperatures.

- · 10.3 Possibility of hazardous reactions No dangerous reactions known
- 10.4 Conditions to avoid No further relevant information available.

· 10.5 Incompatible materials: No further relevant information available.

(Contd. on page 4)

— GB -



Printing date 10.01.2015

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

Version number 3

Revision: 10.01.2015

Trade name: glutamic acid

(Contd. of page 3)

• 10.6 Hazardous decomposition products: No dangerous decomposition products known

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritant effect.
- Sensitisation: No sensitizing effect known.
- \cdot Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The material is not subject to classification according to EC lists in the last version.

SECTION 12: Ecological information

· 12.1 Toxicity

- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes: Generally not hazardous for water.
- · 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation Smaller quantities can be disposed with household garbage.

• Uncleaned packagings:

• Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number		
ADR, ADN, IMDG, IATA	Void	
14.2 UN proper shipping name		
ADR, ADN, IMDG, IATA	Void	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA		
· Class	Void	
14.4 Packing group		
ADR, IMDG, IATA	Void	
14.5 Environmental hazards:		
Marine pollutant:	No	

GB



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

Version number 3

Revision: 10.01.2015

(Contd. of page 4)

Printing date 10.01.2015

Trade name: glutamic acid

· 14.6 Special precautions for user

Not applicable.

 \cdot 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· UN ''Model Regulation'':

SECTION 15: Regulatory information

- \cdot 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Labelling according to Regulation (EC) No 1272/2008 Void
- Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Department issuing data specification sheet: EHS

· Contact: Paweł Skiba

• Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) 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) ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) *** Data compared to the previous version altered.**

GB -