

SAFETY DATA SHEET

according to Regulation (EC) No.1907/2006

Version 2.6 Revision Date 02.03.2017

**Safety Data Sheet
POLYGLUTAMIC ACID**

Section 1: Identification of the Substance/Preparation and of the Company/Undertaking

Identification of the substance or preparation

1.1 Product identifiers

INCI Name : POLYGLUTAMIC ACID
Chemical Name : Polymer of glutamic acid; Poly-L-Glutamic Acid;
REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Cosmetic ingredient for skin conditioning, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : M.C.Biotec Inc.
 47-505, Demin Huayuan
 Nantong, China
Tel : +86-139-13923033
Fax : +86-10-80115555 ext 441505
E-mail address : mc@mcbiotec.com
website : www.mcbiotec.com


1.4 Emergency telephone number

Emergency Phone : +86-139-13923033

Section 2: Hazards Identification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Acute toxicity - Inhalation (Dusts/Mists)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2B
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2

	Hazardous to the aquatic environment, long-term hazard	Category 2
Label elements		
Signal word	Warning	
Hazard statement		
H302	Harmful if swallowed	
H312	Harmful in contact with skin	
H332	Harmful if inhaled	
H315	Causes skin irritation	
H320	Causes eye irritation	
Precautionary statement		
Prevention		
P261	Avoid breathing dust/fume/gas/mist/vapors/spray	
P264	Wash face, hands and any exposed skin thoroughly after handling	
P270	Do not eat, drink or smoke when using this product	
P271	Use only outdoors or in a well-ventilated area	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
Response		
P308+313	IF exposed or concerned: Get medical advice/attention	
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing	
P337+313	If eye irritation persists get medical advice/attention.	
P302+352+312	IF ON SKIN: Wash with plenty of soap and water Call a POISON CENTER or doctor/physician if you feel unwell	
P332+313	If skin irritation occurs: Get medical advice/attention	
P362+364	Take off contaminated clothing and wash before reuse	
P304+340+312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell	
P301+312+330	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth	
Disposal		
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	Not applicable	

Supplemental information
NFPA

Health hazards	0
Flammability	0
Stability	0
Physical and chemical properties	-


HMIS

Health hazards	0
Flammability	0
Physical hazards	0
Personal protection	-

Section 3: Composition and Information on Ingredients
3.1 Substance

Synonyms	:	Gamma-polyglutamic acid; γ -Polyglutamic Acid; Polyglutamic Acid; PGA; γ -PGA; Natto Gum; Plant collagen; collagene vegetable, phyto collage
Formula	:	$(C_5H_9NO_4)_x$
Molecular Weight	:	15,000-50,000 g/mol

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
POLYGLUTAMIC ACID		
CAS-No.	25513-46-6	--
EC-No.	--	<= 100 %

Section 4: First Aid Measures
4.1 Description of first aid measures
General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

Section 5: Fire Fighting Measures**5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Wear self-contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

Section 6: Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 4°C

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 . Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

Section 9: Physical and Chemical Properties
9.1 Information on basic physical and chemical properties

a) Appearance	Form: powder Colour: white
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available it.
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

no data available

Section 10: Stability and Reactivity
10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Other decomposition products - Carbon oxides. Nitrogen oxides (NO_x).

In the event of fire: see section 5

Section 11: Toxicological Information**11.1 Information on toxicological effects****Acute toxicity**

LD50 oral rat:6g/kg

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 500 mg/kg

ATEmix (dermal) 1100 mg/kg

ATEmix (inhalation-dust/mist) 1.5 mg/l

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is

identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

no data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information**12.1 Toxicity**

Toxicity to fish No data available

Toxicity to daphnia and other aquatic invertebrates No data available

Toxicity to algae No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

no data available

Section 13: Disposal Considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14: Transport Information

14.1 UN number

ADR/RID:- IMDG: - IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods
 IMDG: Not dangerous goods
 IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - IMDG:- IATA:-

14.4 Packaging group

ADR/RID:- IMDG:- IATA:-

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

Further information

No data available

Section 15: Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

Section 16: Other Information

Disclaimer

The information above is based on our present knowledge. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

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