

SAFETY DATA SHEET

according to Regulation GB15258-2009
 Revision date: 1/1/2015
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Section 1. Chemical Product & Company Information

1.1 Product identifiers

Product name : 4-ArmPEG-GA / 4-ArmPEG-Glutaric Acid
 Product No. : A44012
 M.W : 2K,10K,20K
 Brand : Biochempeg

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company name: Biochempeg Scientific Inc
 Street/POB-No. : 108 Water Street, Room 4D, Watertown, MA 02472, USA
 Telephone : +1 857-366-6766
 Fax : +1 617-206-9595
 Email : sales@biochempeg.com

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
 This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards – none

Section 3: Composition/Information on ingredients

3.1 Substances

Synonyms	Content	Structure
4-ArmPEG-GA	Min 95%	$ \left[\text{C} \left[\text{CH}_2 - \text{O} \left(\text{CH}_2 \text{CH}_2 \text{O} \right)_n \text{CH}_2 \text{CH}_2 - \text{O} - \overset{\text{O}}{\parallel}{\text{C}} - \text{CH}_2 \text{CH}_2 \text{CH}_2 - \text{COOH} \right]_4 \right. $

Section 4: Hazards Summarizing

4.1 Description of first aid measures

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 Flush eyes with water as a precaution.
If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

no data available

Section 5. FIREFIGHTING 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

Nature of decomposition products not known.

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

Personal protection: Use personal protective equipment. Avoid breathing vapors

Steps if material is released or spilled:

Keep air ventilation , Keep away from kindling , absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Treatment as the environmental protection department's requirement, Do not flush to sewer!

SECTION 7: Handling Storage

Notice: Keep air ventilation; avoid contacting with skin and eyes.

Storage: Store in a cool ,dry and airiness place. Keep storage container tightly closed. Recommended storage temperature -5°C .

SECTION 8: Exposure controls/personal protection

Exposure limits: Occupational Exposure Limits.

Ventilation: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred.

Respiratory System Protection: Avoid to inhalation the vapour or gas.

Eye Protection: Use chemical safety goggles.

Protective Gloves: Common chemical resistant gloves.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

- | | |
|--------------------------------------|---|
| a) Appearance | White/Off-white powder |
| b) Boiling temperature/boiling range | no date available |
| c) Special gravity(H2O=1) | no date available |
| d) Flash point | no date available |
| e) Water solubility | Miscible with water with any proportion |

SECTION 10: Stability and reactivity

Stability: Product is stable under normal operating conditions and use as described in technical data sheet

Hazardous Polymerization: No.

Condition to Avoid: High temperature and frequent exposure.

Materials to Avoid : Strong oxidizers agent.

SECTION 11: Toxicological information

Acute oral toxicity: LD50rat > 12,600 mg/kg

Acute dermal toxicity: LD50rabbit > 5,000 mg/kg

Skin irritation: Rabbit No skin irritation

Eye irritation: Rabbit slight irritation

SECTION 12: Ecological information

No data available

SECTION 13: Disposal considerations

Disposal method: Consult the local environmental protection department

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

no data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

To the best of our knowledge, the information contained herein is accurate. However, neither Biochempeg Scientific nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. This product is intended for research.