

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name: GalNAc β -PEG²-PA
Product ID number: 0031b-PA
Oligosaccharide-spacer: GalNAc β -(OCH₂CH₂)₂NH₂
Trivial name: β -N-acetylgalactosamine
Brand: GlycoNZ

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

Identified uses - laboratory chemicals, for laboratory use only

1.3 Details of the Supplier of the safety data sheet

GlycoNZ Limited, Scott Laboratory Building, 19 Mount Street, 1010 Auckland, New Zealand, Telephone: +64 9 921 9710

1.4 Emergency telephone number

+64 21 715 494

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

Caution - substance not yet tested completely.

2.3 Other hazards

none

SECTION 3: Composition/information on ingredients

Substances: PAA Mol. Weight: 30-40 kDa, Label Nature: none

Sugar Content: 20 mol. %, Label Content: -

Form: Lyophilized from 5% water solution at +20°C

SECTION 4: First aid measures**4.1 Description of first aid measures**

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

In case of skin contact - wash with 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

No harmful effects data obtained

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures**5.1 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, sulphur oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures.**

Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions.

don't let product enter drains

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.

ventilation isn't necessary

7.2 Conditions for safe storage, including any incompatibilities.

At -20°C as lyophilisate or +4°C in solution in a glass or plastic vial

7.3 Specific end uses.

no any requirements

SECTION 8: Exposure controls/personal protection

8.1 Control parameters. Components with workplace control parameters.

none

8.2 Exposure controls

Appropriate engineering controls - general industrial hygiene practice. Personal protective equipment. Eye/face protection - equipment for eye protection tested and approved under appropriate government standards EN 166(EU). Skin protection - gloves should satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374. 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. Wash and dry hands. Body Protection - choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Respiratory protection is not required. Where protection from dusts is desired, use dust masks.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Off-white, pale yellow to cream amorphous.

Odor: Negligible.

Boiling Point: Not determined.

Vapor Pressure: Negligible.

Melting Point: Not determined.

Solubility in water: Very high.

SECTION 10: Stability and Reactivity

10.1 Stability:

Stable under recommended storage conditions.

10.2 Incompatibility (Materials to Avoid):

Unknown

10.3 Hazardous Decomposition or By-products:

Not determined.

10.4 Hazardous Polymerisation:

Without occur.

SECTION 11: Toxicological information

11.1 Toxicological effects.

Acute toxicity - not toxic.

Skin corrosion/irritation - not toxic.

Serious eye damage/eye irritation - no damage.

Respiratory or skin sensitization - no any effects.

Germ cell mutagenicity - not mutagenic

Carcinogenicity - not listed by OSHA.

Reproductive toxicity - not toxic.

Specific toxicity - not toxic.

Potential health effects:

Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

SECTION 12: Ecological information

12.1 Persistence and degradability:

quick degradation by bacteria or fungus etc.

12.2 Bioaccumulative potential

not potential

12.3 Mobility in soil

fast eluting by water

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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: none IMDG: none IATA: none

14.2 UN proper shipping name

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

14.3 Transport hazard class

not hazard

14.4 Packaging group

fragile

14.5 Environmental hazards

ADR/RID: none IMDG Marine pollutant: none IATA: none

SECTION 15: Regulatory information

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

SECTION 16: Other information

NMR spectrum of initial sugar: by request

HPLC data of initial sugar: RT 8.5` Separon SGX C18 7 µm, water/MeCN 20%, 2 ml/min

Monosaccharide composition according to HPLC analysis after acid hydrolysis: galactosamine only

References: See Reagent Catalogue