



NONHAZARDOUS

Safety Data Sheet Beta-(1-4) Galactosidase

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878,
and Regulation (EC) No. 1272/2008

Version 3.01
revised on Feb 6, 2024

SECTION 1 Identification of the Substance and of the Company

1.1. Product identifier

Product numbers	E-BG07, E-BG07-200, E-BG07-20	KE-DG01, KE-DGMX
Product name	Beta-(1-4) Galactosidase	
Synonyms	Lactase, β -D-Galactoside galactohydrolase, β -D-Galactopyranosidase β -Lactosidase	

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

Laboratory chemicals
For research use only. Not intended for human or animal diagnostic or therapeutic uses
or used in the manufacture of food or pharmaceutical products

1.3. Details of the supplier of the safety data sheet

QA-Bio, Inc - 128 Vista Monte - Palm Desert, CA 92260
Tel: +1 760-249-2664 Email: safety@qa-bio.com Website: www.QA-Bio.com

1.4. Emergency telephone number

Tel: +1 760-249-2664

Section 2 Hazards Identification

2.1. Classification of the substance or mixture

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
EUH210 - Safety data sheet available on request

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

No information available

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

Section 3 Composition of the Material

3.1. Substances

Purified protein in a non-hazardous buffer solution in a 0.5 ml polypropylene vial

3.2. Mixtures

The product does not contain any substances considered to be hazardous to health at their given concentration.

Section 4 First Aid Measures

4.1. Description of first aid measures

Eyes: irrigate with plenty of water.
Skin: wash with soap and water.
Ingestion: drink plenty of water.
Inhalation: move to a well ventilated area and clear nose and throat.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
Effects of Exposure	No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5 Firefighting Measures

- 5.1. Extinguishing media
Non hazardous. Water spray or appropriate foam according to surrounding fire conditions.
- 5.2. Special hazards arising from the substance or mixture
No information available
- 5.3. Advice for firefighters
No special advice

Section 6 Accidental Release Measures

- 6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions Ensure adequate ventilation.
For emergency responders Use personal protection recommended in Section 8.
- 6.2. Environmental precautions
Environmental precautions See Section 12 for additional Ecological Information.
- 6.3. Methods and material for containment and cleaning up
Methods for containment Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.
- 6.4. Reference to other sections
See section 8 for more information. See section 13 for more information.

Section 7 Handling and storage

- 7.1. Precautions for safe handling
Advice on safe handling Ensure adequate ventilation.
General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.
- 7.2. Conditions for safe storage, including any incompatibilities
Storage Conditions Keep container tightly closed in a dry and well-ventilated place.
Storage class (TRGS 510) Storage class 10.
- 7.3. Specific end use(s)
Risk management methods [RMM] The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
- 8.2. Exposure controls
Engineering controls No information available.
Individual protection measures, such as personal protective equipment
Eye/face protection No special protective equipment required.
Skin and body protection No special protective equipment required.
Respiratory protection No protective equipment is needed under normal use conditions.
If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls No information available.

Section 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	No information available
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	None known	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	392.78 °C	
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes	Not applicable
9.2.2. Other safety characteristics	No information available

Section 10 Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact	None
Sensitivity to static discharge	None

10.3. Possibility of hazardous reactions

No dangerous reactions known

10.4. Conditions to avoid

None determined

10.5. Incompatible materials

None determined

10.6. Hazardous decomposition products

None determined

Section 11 Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral)	25,200.00 mg/kg
ATEmix (dermal)	20,000.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties	No information available.
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11.2.2. Other information

Other adverse effects	No information available.
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Section 12 Ecological information

12.1. Toxicity

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

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

Section 13 Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

Section 14 Transport information

IATA

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN/ID No	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None

Section 15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
No ingredients are listed.

European Union: Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

No chemical safety assessment

Section 16 Other Information

16.1 Statement information

This document includes information that is believed to be correct based upon currently available knowledge. It is not all-inclusive and does not represent the sum total of information known about the material described herein.

16.2. Date of the latest revision of the SDS

revised on Feb 6, 2024

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



NONHAZARDOUS

Safety Data Sheet Buffer 6.0

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878,
and Regulation (EC) No. 1272/2008

Version 3.01
revised on Feb 6, 2024

SECTION 1 Identification of the Substance and of the Company

1.1. Product identifier

Product numbers	E-BG07, E-BG07-200, E-BG07-20	E-S001, E-S001-200, E-S001-20
	E-S005, E-S005-200, E-S005-20	E-S007, E-S007-200, E-S007-20
Product name	Buffer 4.0	
Synonyms	Not applicable	

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

Laboratory chemicals
For research use only. Not intended for human or animal diagnostic or therapeutic uses
or used in the manufacture of food or pharmaceutical products

1.3. Details of the supplier of the safety data sheet

QA-Bio, Inc - 128 Vista Monte - Palm Desert, CA 92260
Tel: +1 760-249-2664
Email: safety@qa-bio.com, Website: www.QA-Bio.com

1.4. Emergency telephone number

Tel: +1 760-249-2664

Section 2 Hazards Identification

2.1. Classification of the substance or mixture

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
EUH210 - Safety data sheet available on request

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

No information available

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

Section 3 Composition of the Material

3.1. Substances

Purified protein in a non-hazardous buffer solution in a 0.5 ml polypropylene vial

3.2. Mixtures

The product does not contain any substances considered to be hazardous to health at their given concentration.

Section 4 First Aid Measures

4.1. Description of first aid measures

Eyes: irrigate with plenty of water.
Skin: wash with soap and water.
Ingestion: drink plenty of water.
Inhalation: move to a well ventilated area and clear nose and throat.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
Effects of Exposure	No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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Section 5 Firefighting Measures

- 5.1. Extinguishing media
Non hazardous. Water spray or appropriate foam according to surrounding fire conditions.
- 5.2. Special hazards arising from the substance or mixture
No information available
- 5.3. Advice for firefighters
No special advice

Section 6 Accidental Release Measures

- 6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions Ensure adequate ventilation.
For emergency responders Use personal protection recommended in Section 8.
- 6.2. Environmental precautions
Environmental precautions See Section 12 for additional Ecological Information.
- 6.3. Methods and material for containment and cleaning up
Methods for containment Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.
- 6.4. Reference to other sections
See section 8 for more information. See section 13 for more information.

Section 7 Handling and storage

- 7.1. Precautions for safe handling
Advice on safe handling Ensure adequate ventilation.
General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.
- 7.2. Conditions for safe storage, including any incompatibilities
Storage Conditions Keep container tightly closed in a dry and well-ventilated place.
Storage class (TRGS 510) Storage class 10.
- 7.3. Specific end use(s)
Risk management methods [RMM] The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
- 8.2. Exposure controls
Engineering controls No information available.
Individual protection measures, such as personal protective equipment
Eye/face protection No special protective equipment required.
Skin and body protection No special protective equipment required.
Respiratory protection No protective equipment is needed under normal use conditions.
If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls No information available.

Section 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	No information available
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	None known	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	392.78 °C	
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes	Not applicable
9.2.2. Other safety characteristics	No information available

Section 10 Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None

Sensitivity to static discharge None

10.3. Possibility of hazardous reactions

No dangerous reactions known

10.4. Conditions to avoid

None determined

10.5. Incompatible materials

None determined

10.6. Hazardous decomposition products

None determined

Section 11 Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral)	25,200.00 mg/kg
ATEmix (dermal)	20,000.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties	No information available.
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11.2.2. Other information

Other adverse effects	No information available.
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Section 12 Ecological information

12.1. Toxicity

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

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

Section 13 Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

Section 14 Transport informationIATA

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN/ID No	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None

Section 15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
No ingredients are listed.

European Union: Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

No chemical safety assessment

Section 16 Other Information

16.1 Statement information

This document includes information that is believed to be correct based upon currently available knowledge. It is not all-inclusive and does not represent the sum total of information known about the material described herein.

16.2. Date of the latest revision of the SDS

revised on Feb 6, 2024

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