



SAFETY DATA SHEET

according to Safe Work Australia

Enzyme

Material number 186017

Revision date: 13/6/2018

Version: 5

Language: en-AU,NZ

Date of print: 6/8/2018

Page: 1 of 7

1. Product identifier and identity for the chemical

Product identifier

Trade name: Enzyme
This safety data sheet pertains to the following products:
806220 Bromelin Erytype ready for use 10 x 50 mL
805012 Bromelin, 10 mL

Recommended use of the chemical and restrictions on use

General use: Use as laboratory reagent.
Only for industrial users.

Suppliers name, address and phone number

Company name: Bio-Rad Medical Diagnostics GmbH
Street/POB-No.: Industriestr. 1
Postal Code, city: 63303 Dreieich
Germany
WWW: www.medizinische-diagnostik-dreieich.de
E-mail: contact.bmd@bio-rad.com
Telephone: +49 (0)6103-3130-0
Telefax: +49 (0)6103-3130-646

Dept. responsible for information:
Produktmanagement Transfusion
Telephone: 06103 3130-611
Telefax: 06103 3130-724

Additional information: Distribution:
Bio-Rad Laboratories Pty Ltd
Level 5, 446 Victoria Road,
Gladesville, NSW, 2111 Australia
Telephone: +61 2 9914 2800
Telefax: +61 2 9914 2888
Email: TechSupport.ANZCDG@bio-rad.com
or TechSupport.ANZLSG@bio-rad.com
Bio-Rad Laboratories Pty Ltd
189 Bush Road
Albany Auckland 0632 New Zealand
Telephone: +64 9 451 2280
Telefax: +64 9 415 2284
Email: TechSupport.ANZCDG@bio-rad.com
or TechSupport.ANZLSG@bio-rad.com

Emergency phone number

Australia: 1800 039 008
New Zealand: 800 2436 2255

2. Hazard Identification

Classification of the hazardous chemical

GHS classification

This mixture is classified as not hazardous.



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Label elements

Hazard statements: not applicable

Precautionary statements: not applicable

3. Composition / information on ingredients

Mixtures

Identity of chemical ingredients:

Aqueous solution of anorganic salts and organic compounds.
Contains surfactants and antibiotics.

Hazardous ingredients:

CAS No.	Designation	Concentration	Classification
CAS 9001-00-7	Bromelin	< 1 %	Skin irritation - Category 2. Eye irritation - Category 2A. Sensitisation - respiratory - Category 1. Specific target organ toxicity (single exposure) - Category 3.

Additional information: The maximum workplace exposure limits are, where necessary, listed in section 8.

4. First Aid Measures

Description of necessary first aid measures

In case of inhalation: Provide fresh air. Seek medical treatment in case of troubles.

Following skin contact: Remove residues with water. Change contaminated clothing. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of eye irritation consult an ophthalmologist.

After swallowing: Rinse mouth and drink large quantities of water.
Seek medical attention. Never give anything by mouth to an unconscious person.

Symptoms caused by exposure

In case of inhalation:
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Medical Attention and Special Treatment

Treat symptomatically.

5. Fire Fighting Measures

Suitable extinguishing media

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

Specific hazards arising from the chemical

Fires in the immediate vicinity may cause the development of dangerous vapours. In the event of a fire, the following may be produced when the water evaporates: Carbon monoxide and carbon dioxide.



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Special protective equipment and precautions for fire fighters

Special protective equipment for firefighters:

Wear self-contained breathing apparatus. Wear appropriate protective equipment.

Additional information: Hazchem-Code: -

Do not allow fire water to penetrate into surface or ground water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/aerosol.

Avoid contact with the substance. Provide adequate ventilation. Wear personal protection equipment.

Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance. Final cleaning.

7. Handling and Storage

Precautions for safe handling

Advices on safe handling: Avoid contact with skin and eyes. Do not breathe vapours. Wear appropriate protective equipment.

Keep all containers, equipment and working place clean.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep containers tightly closed and at a temperature between 2 °C and 8 °C.

Hints on joint storage:

Do not store together with acids/alkalies and oxidation agents.

8. Exposure controls/personal protection

Appropriate engineering controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protective equipment (PPE)

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn according to AS/NZS 1715 and AS/NZS 1716 whenever the WEL levels have been exceeded. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to AS/NZS 2161.

Glove material: Nitrile rubber - Breakthrough time: > 480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed eye protectors according to AS/NZS 1337.



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Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Avoid contact with skin and eyes. Do not breathe vapour/aerosol. Change contaminated clothing. After work, wash hands and face.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: liquid Colour: yellowish
Odour:	odourless
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	approx. 100 °C
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	not applicable
Explosion limits:	LEL (Lower Explosion Limit): not applicable UEL (Upper Explosive Limit): not applicable
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: approx. 1 g/mL
Solubility:	soluble in: Ethanol
Water solubility:	soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not applicable
Decomposition temperature:	No data available

Additional information

Viscosity	-
Explosive properties:	not applicable

10. Stability and Reactivity

Reactivity:	refer to 10.3
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No hazardous reactions known.
Conditions to avoid:	Protect against heat /sun rays.
Incompatible materials:	Strong oxidizing agents, strong acids and alkalis.
Hazardous decomposition products:	In the event of a fire, the following may be produced when the water evaporates: Carbon monoxide and carbon dioxide.
Thermal decomposition:	No data available



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11. Toxicological information

Information on toxicological effects

Toxicological effects:

- Acute toxicity (oral): Lack of data.
- Acute toxicity (dermal): Lack of data.
- Acute toxicity (inhalative): Lack of data.
- Skin corrosion/irritation: Lack of data.
- Serious eye damage/irritation: Lack of data.
- Sensitisation to the respiratory tract: Lack of data.
- Skin sensitisation: Lack of data.
- Germ cell mutagenicity/Genotoxicity: Lack of data.
- Carcinogenicity: Lack of data.
- Reproductive toxicity: Lack of data.
- Effects on or via lactation: Lack of data.
- Specific target organ toxicity (single exposure): Lack of data.
- Specific target organ toxicity (repeated exposure): Lack of data.
- Aspiration hazard: Lack of data.

Symptoms

In case of inhalation:
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

12. Ecological information

Ecotoxicity

Further details: No data available

Persistence and degradability

Further details: No data available

Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

Mobility in soil

No data available

Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.



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13. Disposal considerations

Waste treatment methods

Product

Recommendation: Small quantities can be disposed of with the domestic waste or burnt, with due observance of regulations of local authorities. Large quantities are hazardous waste and must be disposed of accordingly.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.
Handle contaminated packages in the same way as the substance itself.
Non-contaminated packages may be recycled.

14. Transport information

Land transport (ADG)

Product designation: Not restricted

Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: no

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

Hazchem-Code:

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15. Regulatory information

National regulations - Australia

No data available

National regulations - New Zealand

No data available

Further regulations, limitations and legal requirements

No data available



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16. Other information

Abbreviations and acronyms:

ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS = Australian Inventory of Chemical Substances
AS/NZS = Australian Standards/New Zealand Standards
ASTM = American Society for Testing and Materials
ATE = Acute toxicity estimate
ATEmix = Acute Toxicity Estimate of mixture
ATP = Adaptation to scientific and technical progress
CAS = Chemical Abstracts Service
EC50 = Effective Concentration 50%
EL50 = Effective loading rate 50%
EmS = Emergency Response Procedures for Ships Carrying Dangerous Goods
EN = European Standard
EPA = Environmental Protection Agency
EU = European Union
EQ = Excepted quantities
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
Hazchem = Hazardous Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IC50 = Inhibition Concentration 50%
IMDG Code = International Maritime Code for Dangerous Goods
IMO = International Maritime Organization
LC0 = Lethal concentration 0%
LC50 = Median lethal concentration
LD50 = Lethal dose 50%
LDLo = Lethal dose low
M-factor = Multiplication factor
NLGI = National Lubricating Grease Institute
OECD = Organisation for Economic Co-operation and Development
OEL-STEL = Occupational Exposure Limit Value-Short-term Exposure Limit
OEL-TWA = Occupational Exposure Limit Value-Time Weighted Average
TDLo = Toxic dose low
WEL = Workplace Exposure Limit

Reason of change: Changes in section 1: Company/undertaking identification
Changes in section 14: Transport information
Changes in section 16: Other information

Date of first version: 4/9/2014

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.