

SAFETY DATASHEET

Bluepha® PHA powder BP330-PD

according to Regulation (EC) No. 1907/2006

Version 2.0 Revision Date 06.30.2023

Print Date 06.30.2023

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product Name: Poly((R)-3-hydroxybutyrate-co-(R)-3-hydroxyhexanoate)

Product Code: BP330-PD

Brand: Bluepha®

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: Jiangsu Lansu Biomaterial Co., Ltd.

Zhongshan 6th Road, Binhai Coastal Industrial Park, Yancheng, China

Telephone: +86 10-69730126

E-mail address: contact@bluepha.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 Other hazards

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.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical Name	CAS No.	Content (%)
Poly((R)-3-hydroxybutyrate-co-(R)-3-hydroxyhexanoate)	147398-31-0	≥99.5
Water	7732-18-5	≤0.5

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

If inhaled, move the patient to fresh air. If the patient is not breathing, give artificial respiration.

In case of skin contact

Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

Rinse out with plenty of water. Remove contact lenses.

If swallowed

Make victim drink water (two glasses at most). Consult doctor if feeling unwell.

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: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide (CO₂) dry powder.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides.

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

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

5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

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

Observe possible material restrictions(see sections 7 and 10).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide proper exhaust ventilation in areas where dust is formed. Prepare normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in a ventilated and cool warehouse, avoid direct sunlight and prevent moisture.

Air, light, heat, and moisture sensitive.

7.3 Specific end use(s)

A part 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

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

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

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). The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

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
b)	Colour	White, opaque
c)	Odour	Odourless to slightly sourish
d)	pH	No data available
e)	Melting Temperature (T_m)	147±2°C
f)	Glass Transition Temperature (T_g)	-2±2°C
g)	Initial boiling point and boiling range	No data available
h)	Flash point	Not applicable
i)	Evaporation rate	No data available
j)	Flammability (solid, gas)	No data available
k)	Upper/lower flammability or explosive limits	No data available
l)	Vapour pressure	No data available
m)	Vapour density	No data available
n)	Relative density	1.20±0.02g/cm ³
o)	Bulk density	0.32±0.05g/cm ³
p)	Water solubility	Not soluble
q)	Partition coefficient: noctanol/water	No data available
r)	Auto-ignition temperature	No data available
s)	Decomposition temperature	250°C
t)	Viscosity	No data available
u)	Explosive properties	No data available
v)	Oxidizing properties	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

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.

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

RTECS: Not 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

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

13.1 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

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

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

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

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

© Copyright 2022 Bluepha Co., Ltd¹. All rights reserved. No part of this publication may be copied, downloaded, reproduced, stored in a retrieval system or transmitted in any form by any means, electronic, mechanical photocopied, recorded or otherwise, without permission of the publisher. No representation or warranty is made as to the truth or accuracy of any data, information or opinions contained herein or as to their suitability for any purpose, condition or application. None of the data, information or opinions herein may be relied upon for any purpose or reason. Bluepha disclaims any liability, damages, losses or other consequences suffered or incurred in connection with the use of the data, information or opinions contained herein. In addition, nothing contained herein shall be construed as a recommendation to use any products in conflict with existing patents covering any material or its use. Bluepha[®] is a trademark owned and registered by Beijing Bluepha Microbiology Technology Co., Ltd., used under license by Beijing Bluepha Microbiology Technology Co., Ltd.

¹: "Affiliate" means a company controlled by, controlling or under common control with Beijing Bluepha Microbiology Technology Co., Ltd by ownership, directly or indirectly, of fifty percent (50%) or more of the stock entitled to vote in the election of directors, or if there is no such stock, fifty percent (50%) or more of the ownership interest in such company, including but not limited to Jiangsu Lansu Biomaterial Co., Ltd., Shanghai Bluepha Biosciences Co., Ltd., Shenzhen Bluepha Biosciences Co., Ltd..