

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

Product name	Bio Food
Product number	BIF-0750
Brand	ReefX®
Substance name	Poly(3-hydroxybutyrate-CO-3-hydroxyvalerate)
CAS no.	80181-31-3

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

Nitrate and phosphate control by biological reduction in aquaria.

1.3 Details of the supplier of the safety data sheet

Name	Live Reef Ltd
Address	8-9 Mountbatten Road EX16 6SW Tiverton Devon UK
Telephone	+44 (0)800 8620270
email	info@livereef.uk

1.4 Emergency telephone number

Live Reef Distribution Ltd
+44 (0)800 8620270

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 (CLP)**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 [CLP]**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2.3 Other hazards

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	Poly(3-hydroxybutyrate-CO-3-hydroxyvalerate)
CAS no.	80181-31-3
Formula	C ₂₇ H ₄₂ O ₁₂ X ₂
Other names / synonyms	PHBV; biopol PHBV; copolymer of (R)-3-hydroxybutyric acid & poly(3-hydroxybutyrate-CO-3-hydroxyvalerate); poly(3-hydroxybutyrate-co-3-hydroxyvalerate); 3-hydroxybutyric acid/3-hydroxyvaleric acid copolymer; Petanoic acid; 3-hydroxy-; hydroxybutanoic acid from cupriavidus necator fermentation of D- Glucose and propionic acid

SECTION 4: First aid measures

4.1 Description of first aid measures

Following inhalation	Not applicable.
Following skin contact	After contact with skin, wash immediately with plenty of water and soap. Get medical attention if irritation occurs.
Following eye contact	Not applicable.
Following ingestion	Rinse mouth with water. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Water, carbon dioxide, dry powder, foam.

5.2 Special hazards arising from the substance or mixture

Burning products include carbon monoxide(CO), carbon dioxide(CO₂), or crotonic acid.

5.3 Advice for firefighters

Wear self-containing breathing apparatus and chemical-protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

None.

6.2 Environmental precautions

None. Biodegradable.

6.3 Methods and material for containment and cleaning up

Shovel into suitable container for disposal.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Keep at temperatures below 60C.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place.

No special restrictions on storage with other products.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****8.2 Exposure controls****Appropriate engineering controls**

Not applicable.

Personal protection equipment**Eye and face protection**

Not applicable.

Skin protection

Not applicable.

Respiratory protection

Normal use: none.

If user operations generate dust, fume or mist: wear mask or respirator with filter type P2.

Environmental exposure controls

Not applicable, biodegradable.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance

Odour

Odour threshold

pH

Solid

Odorless to slightly sourish

No data available

No data available

Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Not flammable
Upper/lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.25g/ml, (ISO 2811-1)
Solubilit(ies)	Not soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	Not explosive
Oxidising properties	Not oxidising

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Temperatures above 200 Degrees Celsius.

10.5 Incompatible materials

Strong acids, alkali, oxidizing agents.

10.6 Hazardous decomposition products

No decomposition expected under normal storage conditions.

Burning produces carbon monoxide(CO), carbon dioxide (CO₂), crotonic acid.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not toxic.

Skin corrosion/irritation

No data available

Serious eye damage/irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

SECTION 12: Ecological information**12.1 Toxicity**

Fish: Not applicable

Aquatic Invertebrates: Not applicable

Water Plants: Not applicable

12.2 Persistence and degradability

Biodegradable.

12.3 Bioaccumulative potential

Does not bioaccumulate. Inherently biodegradable.

12.4 Mobility in soil

Not applicable.

12.5 Results of PBT and vPvB assessment

No data available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Disposal of the product**

Recycling, composting, incineration.

Dispose like plastics.

SECTION 14: Transport information

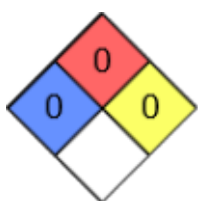
14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information
15.2 Chemical Safety Assessment

No safety analysis was performed for this product or composition.

HMIS Rating

Poly(3-hydroxybutyrate-CO-3-hydroxyvalerate)	
HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

NFPA Rating

SECTION 16: Other information
Further information/disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.