

**HSE-DATASHEET ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 453/2010**

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

Product Name	BioFoam®
Chemical Name	Expanded polylactic acid Applicable to all BioFoam® types supplied by BEWI RAW
Synonyms	Expanded PLA
Trade name	BioFoam®
CAS No.	9051-89-2
EINECS No.	None assigned.
REACH Registration No.	None assigned.

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

Identified use(s)	Foam used primarily for the manufacture of packaging and insulation.
Uses advised against	None known.

**1.3 Details of the supplier of the Safety Data Sheet**

Company name	BEWI RAW		
Mailing Address NL	Postbus 37	Mailing Address FIN (PO)	P.O. Box 360
Postal code	4870 AA		6101
City	Etten-Leur		Porvoo
E-mail	Nederland		Finland
Website			

**1.4 Emergency telephone number**

Emergency Phone No.	(NL) + 31(0) -168-373373 NVIC (NL) +31 (0) 30 274 88 88 (Alleen professionele hulpverleners)	(FIN) +358 9 471977 Poison Information Centre (FIN)
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**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

<b>Regulation (EC) No. 1272/2008 (CLP)</b>	According to EG no. 1272/2008 on classification, labelling and packaging of substances and mixtures.
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**2.2 Label elements**

Product Name	BioFoam®
Hazard Pictogram	None.
Signal word(s)	None.
Hazard statement(s)	None
Precautionary statement(s)	None

**2.3 Other hazards**

This assessment is based on information available on similar products.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Contains PLA (CAS 9051-89-2)

Hazardous ingredients	CAS-No.	EC Hazards symbols	EC risk Phrases	Concentration % (w/w)
none	-	-	-	-

For full text of R phrases see section 16.

## SECTION 4: FIRST AID MEASURES



### 4.1 Description of first aid measures

Inhalation	Remove persons affected by vapor to fresh air. If symptoms persist, obtain medical attention.
Skin Contact	Wash skin with soap and water.
Eye Contact	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes.
Ingestion	Unlikely to be hazardous if swallowed. Seek medical advice immediately and show this container or label. If swallowed, do not induce vomiting. Rinse mouth and then drink plenty of water.

**4.2 Most important symptoms and effects, both acute and delayed** Inhalation: Headache, Dizziness

**4.3 Indication of immediate medical attention and special treatment needed** Unlikely to be required but if necessary treat symptomatically.

## SECTION 5: FIRE-FIGHTING MEASURES

Product is not classified as flammable, but will burn on contact with flame or exposure to high temperature (see section 9). This product may give rise to hazardous fumes in a fire. (Carbon monoxide, Carbon dioxide and Aldehydes). Fire gas of organic material has to be classed invariably as respiratory poison.

### 5.1 Extinguishing Media

**Suitable Extinguishing Media** Water spray, foam, dry powder or CO2.  
**Unsuitable Extinguishing Media** Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

This product may give rise to hazardous fumes in a fire.  
Hazardous Decomposition Product(s): Carbon monoxide, Carbon dioxide, Aldehydes can be produced.

### 5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Chemical protection suit. Keep containers cool by spraying with water if exposed to fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid dust formation.  
Keep away sources of ignition.

### 6.2 Environmental precautions

Do not discharge into drains/surface waters/groundwater.

### 6.3 Methods and material for containment and cleaning up

If safe to do so:

Small spillages: Sweep up and shovel into waste drums or plastic bags. Transfer to a lidded container for disposal or recovery.

Large spillages: Use a vacuum equipment for collecting spilt materials, where practicable. Transfer to a lidded container for disposal or recovery.





6.4 Other

See Also Section 13

## SECTION 7: HANDLING AND STORAGE

7.1	<b>Precautions for safe handling</b>	No special measures necessary if stored and handled as prescribed. Provide adequate ventilation of working area: including appropriate local exhaust ventilation.
	<b>Process Hazards</b>	None
7.2	<b>Conditions for safe storage, including any incompatibilities</b>	Keep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight.
	<b>Storage Temperature</b>	Store product in closed containers. Keep away from rain and moist conditions.
	<b>Incompatible materials</b>	Ambient
	<b>Suitable containers</b>	Do not store together with: Oxidizing agents.
	<b>Specific end use(s)</b>	Steel
		Used primarily for the manufacture of foamed thermal insulation and packaging.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	<b>Control parameters</b>	
8.1.1	<b>Occupational Exposure Limits</b>	The product contains no substances legal limit has been established.
8.1.2	<b>Biological limit value</b>	Not established.
8.1.3	<b>PNECs and DNELs</b>	-
8.2	<b>Exposure controls</b>	Use only in well-ventilated areas.
8.2.1	<b>Appropriate engineering controls</b>	
8.2.2	<b>Personal protection equipment</b>	
	<b>Eye/face protection</b>	Safety glasses with side shields (frame goggles) (e.g. EN 166).
		
	<b>Skin protection (hand protection/other)</b>	Wear suitable gloves. In case of intensive contact, wear protective gloves (EN 374). Before use, the protective glove should be tested in any case for its specific work-situation suitability. Adhere to the manufactures instructions and information relating to the use, storage, care and replacement of the protective gloves.
		
		Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).
	<b>Respiratory protection</b>	An approved dust mask should be worn <b>if dust is generated</b> during processing or handling. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1).
		

<b>Thermal hazards</b>	Not applicable.
<b>General protective and hygiene measures</b>	Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Have eye wash fountain available. Do not inhale dust.
<b>8.2.3 Environmental Exposure Controls</b>	Not applicable.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

These properties are the most relevant.

<b>9.1 Information on basic physical and chemical properties</b>	
Form	Expanded beads or fused bead products
Color	White / colored
Odor	Sweetish
pH (Value)	Not applicable
Vapor pressure	Not determined
Vapor density	Not determined
Density (g/ml)	10-200 kg/m <sup>3</sup> at 20 °C
Softening Point (°C)	Depending on grade
Melting point/range	(150-160°C)
Decomposition temperature	250°C
Autoignition temperature	388°C
Solubility (Water)	Insoluble
Solubility (Other)	None Known
<b>9.2 Other information</b>	The above properties are typical values only and do not constitute a specification (refer to supplier for supply specification).

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## SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	Stable under normal conditions.
<b>10.2 Chemical stability</b>	Stable under normal conditions.
<b>10.3 Possibility of hazardous reactions</b>	Keep away from heat, sources of ignition and direct sunlight.
<b>10.4 Conditions to avoid</b>	Thermal degradation starts above 230°C.
<b>10.5 Hazardous Decomposition Product(s)</b>	Oxidizing agents. Strong bases.

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## SECTION 11: TOXICOLOGICAL INFORMATION

This assessment is based on information available on similar products.

<b>11.1</b>	Information on toxicological effects	
<b>11.1.1</b>	<b>Polymer</b>	
	<b>Principal route of exposure</b>	Eye contact, skin contact, inhalation and ingestion.
	<b>Acute toxicity</b>	There were no target organ effects noted following ingestion or dermal exposure in animal studies.
	<b>Assessment of acute toxicity</b>	Not applicable LD50 (oral/rat): > 2,000 mg/kg LD50 (dermal / rabbit ): > 2,000 mg/kg
	<b>Inhalation</b>	Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.
	<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
	<b>Skin contact</b>	May cause skin dermatitis.
	<b>Eye contact</b>	No data available
	<b>Irritation</b>	May cause irritation to skin and eyes.

	<b>Corrosivity</b>	No data.
	<b>Sensitization</b>	No data.
	<b>Repeated dose toxicity</b>	No data.
	<b>Carcinogenicity</b>	No data.
	<b>Mutagenicity</b>	No data.
	<b>Toxicity for reproduction</b>	No data.
11.2	<b>Other information</b>	None

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## SECTION 12: ECOLOGICAL INFORMATION

This environmental hazard assessment is based on information available on similar products.  
This product contains substances which are classified as dangerous for the environment.

12.1	<b>Toxicity</b>	Algae EC50 (72 h / algae ) > 1100 mg/l. Practically non toxic to organisms in sewage treatment plants (estimated).
12.2	<b>Persistence and degradability</b>	Compostable and biodegradable according to EN13432, ASTM D6400 and ISO 17088. Decomposes in contact with (hot) water.  The hydrolysis product is S-lactic acid which is readily biodegradable.
12.3	<b>Bio accumulative potential</b>	The product has no potential for bioaccumulation. Bioconcentration factor (BCF): <100.
12.4	<b>Mobility in soil</b>	The product is essentially insoluble in water. PS-powder sinks in fresh water, may float or sink in sea water.
12.5	<b>Results of PBT and vPvB assessment</b>	See Section: 15.1.1.
12.6	<b>Other adverse effects</b>	None

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## SECTION 13: DISPOSAL CONSIDERATIONS

13.1	<b>Waste treatment methods</b>	Remove all packaging for recovery or disposal. Recover or recycle if possible. Normal disposal is via incineration operated by an accredited disposal contractor.
13.2	<b>Regulatory information relating to waste</b>	European Union Directive 94/62/EC
13.3	<b>Other information</b>	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and the must be complied with.

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## SECTION 14: TRANSPORT INFORMATION

Not classified under international / national regulations for road / air transport and inland navigation.

14.1	<b>UN number</b>	None.
14.2	<b>Proper Shipping Name</b>	BioFoam®
14.3	<b>Transport hazard class(es)</b>	None.
14.4	<b>Packing Group</b>	None.
14.5	<b>Environmental hazards</b>	None.
14.6	<b>Special precautions for user</b>	Transport on the factory site: see the internal regulations and information in this document.
14.7	<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
14.8	<b>Additional Information</b>	No special packaging requirements

**Hazard label(s)** None.

**Sea transport (IMDG)**

**Air transport (ICAO/IATA)**

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## SECTION 15: REGULATORY INFORMATION

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|---------------|---|-----------------|
| <b>15.1</b>   | <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b> |                 |
| <b>15.1.1</b> | <b>EU regulations</b>   | Not Applicable  |
| <b>15.1.2</b> | <b>National regulations</b>   | Not applicable. |
| <b>15.2</b>   | <b>Chemical Safety Assessment</b>   | Not available.  |

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## SECTION 16: OTHER INFORMATION

This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 453/2010.

### LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	PBT: Persistent, Bio accumulative and Toxic
vPvB	Very Persistent very Bio accumulative

### Training advice

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. BEWI RAW gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. BEWI RAW accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.