

# Safety Data Sheet

## STYROPEK® BFL EU SERIES

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### 1. Identification

#### Product identifier

## STYROPEK® BFL EU SERIES

BFL EU 295, BFL EU 395, BFL EU 397, BFL EU 300, BFL EU 397S, BFL EU 495

#### Recommended use and restriction on use:

Recommended use: for industrial processing only; expanding-agent containing plastic to produce foam plastics.

The "recommended use" identified for this product is provided solely to comply with legal requirements and is not part of the seller's published specification. The terms of this Safety Data Sheet do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

#### Details of the supplier of the safety data sheet

##### Company:

##### Styropek México S.A. de C.V.

Fernando Montes de Oca 71 Col. Condesa, C.P. 06140, Ciudad de México, México

SDS Information Email: [product.stewardship@styropek.com](mailto:product.stewardship@styropek.com)

Telephone: + 52 55 9140 0500

##### Only representative: Styropek Exterior S.L.U.

Calle Caléndula n° 93, Edificio K. Planta Primera, Miniparc III.

El Soto de la Moraleja, 28109. Alcobendas, Madrid Spain

#### Emergency telephone number

34 91 650 65 28

Manufacturing plant: +52 833-500-2400 EXT: 3910

#### Other means of identification

Chemical name: Polystyrene

Commercial name: Styropek BFL EU

Chemical family: Polymer

Synonyms: Expandable Polystyrene

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### 2. Hazard(s) identification

According to Regulation (EC) No 1272 / 2008 [CLP]

**Hazard Classification** Not classified.

#### Label Elements

Hazard symbol: No symbol.

Signal word: No signal word.

Hazard statement: Not applicable.

#### Precautionary Statements

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed.

P243: Take precautionary measures against static discharge.

P403 + P235: Store in a well-ventilated place. Keep cool.

#### Other hazards which do not result in GHS classification according to Regulation (EC) No 1272/2008 [CLP]

In use may form flammable/explosive vapor-air mixture. Product releases pentane, a flammable vapor. Maintain adequate ventilation during processing and use. High concentration of airborne powders or dust may form explosive mixture with air. May cause some eye irritation which should cease after removal of the product.

Warning: Flammable. Releases flammable vapor. May cause eye, skin and respiratory tract irritation. Prolonged or repeated contact may dry skin and cause irritation. Contains material which may cause kidney damage based on animal data. Eye wash fountains and safety showers must be easily accessible. Use with local exhaust ventilation. Avoid contact with the skin, eyes, and clothing.

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### 3. Composition / Information on ingredients

Classification of the substance or mixture in accordance with CLP Regulation (EC) No. 1272 / 2008

Chemical name	Registration number	Other information	Content (w/w)
Isopentane	CAS No. 78-78-4 EC No. 201-142-8 REACH No.: 01-2119475602-38-0033	Flam. Liq. 1 STOT SE. 3 Asp. Tox.1 Aquatic Chronic 2 H224, H304, H336, H411	>= 0.3 - < 3.0 %
Pentane	CAS No. 109-66-0 EC No. 203-692-4 REACH No.: 01-2119459286-30-0036	Flam. Liq. 2 STOT SE. 3 Asp. Tox.1 Aquatic Chronic 2 H225, H304, H336, H411	>= 3.0 - < 7.0 %
Flame retardant	CAS No. 1195978-93-8 REACH No.: 01-2119461714-37-0005	---	>= 0.2 - < 1.0 %

### 4. First-Aid measures

General advice:	Remove contaminated clothing.
Ingestion:	No hazards anticipated. Rinse mouth and then drink plenty of water. If difficulties occur: Seek medical attention.
Skin contact:	Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.
Eyes contact:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.
Inhaled:	Remove the affected individual into fresh air and keep the person calm. If difficulties occur: seek medical attention.

#### Most important symptoms/effects, acute and delayed

Symptoms:	Headache, dizziness, incoordination, dazed state, eye irritation, skin irritation.
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#### Indication of immediate medical attention and special treatment needed

Treatment:	Treat according to the symptoms under clinical conditions.
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### 5. Fire-fighting measures

#### Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Dry powder, water spray, carbon dioxide, foam.

Hazards during fire-fighting: Substance/product is dangerous when exposed to heat or flame.

#### Special protective equipment and precautions for firefighters

Special protective equipment for firefighters: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information: When large quantities of solid substance/product are involved, melting may occur, in which condition, application of water may cause extensive scattering of molten material. Dense smoke produced during combustion may obscure vision. To prevent re-ignition of interior, target center of fire with large amounts of water. Vapors are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition.

### 6. Accidental release measures

Further accidental release measures: High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment, and emergency procedures: Sources of ignition should be kept well clear. Extinguish sources of ignition nearby and downwind. Avoid dust formation. Avoid inhalation. Ensure adequate ventilation. Wear appropriate respiratory protection.

Methods and material for containment and cleaning up: Sweep/shovel up. Avoid raising dust. Ensure adequate ventilation. Place into suitable containers for reuse or disposal in a licensed facility. After decontamination, spill area can be washed with water.

Environmental precautions: Discharge into the environment must be avoided. Do not release untreated into natural waters.

### 7. Handling and storage

Precautions for safe handling: Upon delivery, trailer and/or container should be opened and allowed to vent for a minimum of one hour before unloading. The substance/product in bead or expanded form generates static charges during handling which are difficult to dissipate due to the insulating properties. Take precautionary measures against static discharges. Containers should be opened carefully in well-ventilated areas to avoid static discharge. Maintain air circulation and ventilation at a minimum rate of six air changes per hour to prevent the formation of flammable concentrations.

Protection against fire and explosion: Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Substance/product can

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accumulate a static charge which could act as an ignition source. Wear non-sparking safety shoes. Ground conductive equipment properly to prevent electrostatic discharge. Vapors are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. Higher line velocity can increase the build-up of static electric charge.

Conditions for safe storage, including any incompatibilities:

Segregate from strong oxidizing agents.

Storage stability:

Maintain relative humidity at 40% to minimize static accumulation. Avoid prolonged storage at high temperatures.

### 8. Exposure controls and personal protection

#### Occupational Exposure Limits

Chemical Identity	Type	Occupational Exposure Limits	Source
Pentane	Long-term Exposure Limit (LTEL) values	3000 mg/m <sup>3</sup> 1000 ppm	ECHA

Advice on system design:

Provide local exhaust ventilation to control vapors/mists.

#### Personal protective measures, such as recommended personal protective equipment

General information:

Personal protective equipment (PPE) should not be considered a long-term solution to exposure control. Employer programs to properly select, fit, maintain and train employees to use equipment must accompany PPE. Consult a competent industrial hygiene resource, the PPE manufacturer's recommendation, and/or applicable regulations to determine hazard potential and ensure adequate protection.

Respiratory protection:

Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided. Wear respiratory protection if ventilation is inadequate. Breathing protection if dusts are formed.

Hand protection:

Non-static gloves (e.g. of leather).

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Anti-static protective clothing, antistatic safety shoes.

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Hygiene measures: Avoid inhalation of dust and vapors. Use effective control measures and PPE to maintain worker exposure to concentrations that are below these limits. Provide eyewash station and safety shower. Provide sufficient ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 9. Physical and chemical properties

Physical state:	Solid
Form:	Beads
Color:	White
Odor:	Pentane
pH:	Not applicable
Softening point:	Approx. 71 °C
Onset of boiling:	The substance / product decomposes, therefore not determined
Sublimation point:	No applicable information available
Flash point:	79 - 85 °C (ASTM D3278)
Flammability:	Not highly Flammable (UN Test N.1 ready combustible solids)
Flammability of aerosol:	Not applicable, the product does not form flammable aerosols
Lower explosion limit:	1.4 %(V) (air)
Upper explosion limit:	8.3 %(V) (air)
Autoignition:	285 °C (DIN 51794)
Density:	Approx. 1.02 – (20 °C), 1.05 g/cm <sup>3</sup>
Bulk density:	Approx. 640 kg/m <sup>3</sup> (20 °C)
Vapor density:	Heavier than air
Vapor pressure:	Not applicable
Miscibility in water:	Immiscible
Solubility in water:	Not soluble
Solubility (quantitative):	No applicable information available
Solubility (qualitative):	Soluble. Solvent(s): aromatic hydrocarbons, organic solvents, ketones
Partition coefficient (n-octanol/water) (log Pow):	Not applicable
Thermal decomposition:	No applicable information available.
Auto-ignition temperature:	Not self-ignition
Viscosity, kinematic:	No applicable information available.
Evaporation rate:	The product is a non-volatile solid

### 10. Stability and reactivity

Reactivity:	No applicable information available.
Corrosion to metals:	No corrosive effect on metal.
Oxidizing properties:	Not an oxidizer.
Chemical stability:	No applicable information available.

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Possibility of hazardous reactions:	The product is stable if stored and handled as prescribed/indicated.
Conditions to avoid:	Avoid all sources of ignition: heat, sparks, open flame. Avoid electrostatic discharge.
Incompatible materials:	Strong oxidizing agents, aromatic solvents.
Hazardous decomposition products:	Possible thermal decomposition products: gases/vapors, monomers, cyclic low molecular weight oligomers, oxides, hydrocarbons.
Thermal decomposition:	No applicable information available.

### 11. Toxicological information

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

Primary routes of exposure: Routes of entry for solids and liquids are ingestion and inhalation but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

#### Acute toxicity (list all possible routes of exposure)

Assessment of acute toxicity: Contact with molten product may cause thermal burns.

Specified substance(s):

Isopentane Aspiration may result in chemical pneumonitis, which may be fatal.

Oral: Type of value: LD50  
Value: > 2,000 mg/kg

Dermal: Type of value: LD50  
Value: > 2,000 mg/kg

Inhalation: Type of value: LC50  
Value: > 5 mg/L

Irritation/Corrosion Frequent and prolonged contact can lead to skin irritation.

Skin: Prolonged contact with the product can result in skin irritation.

Eye irritation: Similar findings as for skin apply to eyes.

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Sensitization: There is no evidence of a skin-sensitizing potential.

### Chronic toxicity/Effects

Repeated dose toxicity: The substance is inert.

Specified substance(s):

Isopentane Chronic overexposure has been shown to cause adverse kidney effects in experimental animals.

Genetic toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Carcinogenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Reproductive toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Other information

Specified substance(s):

Pentane Has a degreasing effect on skin.

Symptoms of exposure: Headache, dizziness, incoordination, dazed state, eye irritation, skin irritation.

## 12. Ecological information

### Toxicity

Aquatic toxicity:

Specified substance(s):

Pentane Acutely toxic for aquatic organisms.

### Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O): Based on the data available concerning eliminability/degradation and bioaccumulation potential, longer-term harm to the environment is improbable.

Elimination information: Non-biodegradable.



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Bioaccumulative potential: The product will not be readily bioavailable due to its consistency and insolubility in water.

Additional information: Add. remarks environmental fate & pathway: because of the product's consistency and low water solubility, bioavailability is improbable.

### 13. Disposal considerations

Waste disposal of substance: Dispose of in accordance with national, state and local regulations. Do not discharge into waterways or sewer systems without proper authorization.

Container disposal: Dispose of in accordance with national, state and local regulations. Uncontaminated packaging can be recycled. Contact manufacturer regarding recycling.

### 14. Transport information

#### TDG

Hazard class: 9  
Packing group: III  
ID number: UN 2211  
Hazard label: 9  
Proper shipping name: POLYMERIC BEADS, EXPANDABLE

#### IATA/ICAO

Hazard class: 9  
Packing group: III  
ID number: UN 2211  
Hazard label: 9  
Proper shipping name: POLYMERIC BEADS, EXPANDABLE

#### IMDG

Hazard class: 9  
Packing group: III  
ID number: UN 2211  
Hazard label: 9  
Marine pollutant: No  
Proper shipping name: POLYMERIC BEADS, EXPANDABLE

### 15. Regulatory information

For regulatory information please consult the product regulatory data sheet.

### 16. Other information

#### Full text of H-phrases as mentioned in section 3

H224. Extremely flammable liquid and vapour.  
H304. May be fatal if swallowed and enters airways.

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H336. May cause drowsiness or dizziness.  
H411. Toxic to aquatic life with long lasting effects.  
H225. Highly flammable liquid and vapour.  
Flam. Liq. Flammable liquids.  
Asp. Tox. Aspiration hazard.  
STOT SE. Specific Target Organ Toxicity (Single Exposure)

### Descriptions of possible used abbreviations

ECHA. European Chemicals Agency.  
LD50. Lethal Dose 50 % corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval.  
TDG. Transportation of Dangerous Goods.  
IATA/ICAO. International Air Transport Association/International Civil Aviation Organization.  
IMDG. International Maritime Dangerous Goods.

### Additional information

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care® is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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