1. Identification

Product identifier used on the label

BIOPEK® MXP Series
BIOPEK® MXP 240, BIOPEK® MXP 340, BIOPEK® MXP 440

Recommended use of the chemical 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 a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) 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 SA de CV
Fernando Montes de Oca 71 Col. Condesa, C.P. 06140, Ciudad de México, México
Telephone: +52 55 9140 0523

Manufacturer / importer: STYROPEK S.A. DE C.V.

Emergency telephone number

24 Hour Emergency Response Information
SETIQ Mexico: 01 800 0021400
CHEMTREC: 01 800 424-9300
832-446-6154 (in USA)
Int.: +1-703-527-3887

Manufacturing plant: +52 833-500-24-00, ext: 3910

Other means of identification

Chemical name: Polystyrene
Commercial name: BIOPEK® MXP Series
Chemical family: Polymer
Synonyms: Expandable Polystyrene

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

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:
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.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

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.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
78-78-4	>= 0.3 - < 3.0 %	Isopentane
109-66-0	>= 3.0 - < 7.0 %	Pentane

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
9003-53-6	> 90.0 %	polystyrene
109-66-0	>= 3.0 - < 7.0 %	Pentane

4. First-Aid Measures

Description of first aid measures

If on skin: Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes: In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

If swallowed: No hazards anticipated. Rinse mouth and then drink plenty of water. If difficulties occur: Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: headache, dizziness, incoordination, dazed state, Eye irritation, skin irritation
Hazards: No hazards anticipated.

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water spray, foam, dry powder, carbon dioxide
Unsuitable extinguishing media for safety reasons: water jet

Special hazards arising from the substance or mixture

Hazards during firefighting: carbon monoxide, carbon dioxide, Styrene, aliphatic hydrocarbons. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for firefighting: Wear self-contained breathing apparatus and chemical-protective clothing.

6. Accidental release measures

Further accidental release measures: High risk of slipping due to leakage/spillage of product. Shut off or stop source of leak. Substance/product can form explosive mixture with air.

Personal precautions, protective equipment and emergency procedures
Sources of ignition should be kept well clear. Ensure adequate ventilation. Note that this gas is heavier than air and can spread along the ground in the direction of the wind. Beware of pits and confined spaces. Use antistatic tools. Vapors are heavy and collect in low areas. Avoid all sources of ignition: heat, sparks, open flame.

Environmental precautions
Do not allow to enter drains or waterways. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up
For small amounts: Sweep/shovel up. Pack in tightly closed containers for disposal.
For large amounts: Pick up with vacuum equipment approved for use in hazardous locations. Pack in tightly closed containers for disposal. Ensure adequate ventilation. Dispose of absorbed material in accordance with regulations. Avoid raising dust.

7. Handling and Storage

Precautions for safe handling
Protection against fire and explosion:
The product is combustible. Vapors may form ignitable mixture with air. Keep away from heat. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Containers should be earthed during decanting operations. It is recommended that all conductive parts of the machinery are grounded. All parts of the plant and equipment should be electrically bonded together and grounded. Electrical continuity should be checked at regular intervals. Higher line velocity can increase the build-up of static electric charge. Avoid flammable gas mixtures. Ensure an efficient ventilation (at least one air change per hour). Vapors are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. Because of danger of explosion, avoid vapors reaching the cellar, sewage water and pits. Empty containers may contain flammable residue.

Conditions for safe storage, including any incompatibilities
Further information on storage conditions:
Protect against heat. Keep away from sources of ignition - No smoking. Keep only in the original container. Keep container tightly sealed. Protect against moisture. Avoid direct sunlight. Protect containers from physical damage. The authority permits and storage regulations must be observed. Store protected against freezing. Keep tanks under inert gas. Air monitoring should be used to alert any buildup of explosive mixtures. Equipment to be installed in an environment with potentially explosive atmospheres should conform to the requirements of ATEX Directive 94/9/EC. Ventilate freight container with open door for 30 minutes before unloading.

Storage stability:
Keep container tightly closed and dry.
Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Pentane	Exposure limits NIOS Pocket Guide to Chemical Hazards (US)	TWA value 600 ppm 1,800 mg/m^3 STEL value 760 ppm 2,250 mg/m^3 REL value 120 ppm 350 mg/m^3 Ceil_Time 610 ppm 1,800 mg/m^3

General safety and hygiene measures:
Avoid inhalation of dusts/mists/vapors. No special precautions necessary. When using do not eat or drink. When using do not smoke.

9. Physical and Chemical Properties

Form:	Beads
Odor:	Faint specific odor
Odor threshold:	Not determined
Color:	White
pH value:	Not soluble
Softening temperature:	Approx. 70 °C
Onset of boiling:	The substance / product decomposes, therefore not determined.
Sublimation point:	Not applicable
Flash point:	Vapors are flammable.
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:	Product not examined. Value is calculated from the data of the components.
Upper explosion limit:	Product not examined. Value is calculated from the data of the components.
Autoignition:	285 °C (DIN 51794)
Vapor pressure:	Not applicable
Density:	Approx. 1.02 - (20 °C), 1.05 g/cm^3
Bulk density:	Approx. 600 (20 °C) kg/m^3
Vapor density:	2.5 Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):	Not applicable
Self-ignition temperature:	Not self-igniting
Viscosity, dynamic:	Not relevant
Miscibility with water:	Immiscible
Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	Soluble Solvents: aromatic hydrocarbons, ketones, organic solvents,
Evaporation rate:	The product is a non-volatile solid.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated., Vapors may form explosive mixture with air.

Oxidizing properties: not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
Formation of explosive gas/air mixtures.

Conditions to avoid
> 70 °C. Avoid all sources of ignition: heat, sparks, open flame. Avoid direct sunlight. Avoid electro-static discharge.

Incompatible materials
Explosive substances according UN transport regulations class 1, Propellant release will be boosted with increasing temperature.

Hazardous decomposition products
Decomposition products: Possible thermal decomposition products: Pentane, styrene monomers, Heated product evolves combustible vapors.

11. Toxicological information

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/Effects

Acute toxicity
Assessment of acute toxicity: Contact with heated product can cause thermal burns.

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

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

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

Irritation / corrosion
Assessment of irritating effects: No irritation is expected under intended use and appropriate handling. No data available concerning irritating effects.

Skin
Result: non-irritant

Eye
Result: non-irritant

Sensitization
Assessment of sensitization: There is no evidence of a skin-sensitizing potential.
Result: Non-sensitizing.

Chronic Toxicity/Effects

Repeated dose toxicity
Information on: isopentane
Assessment of repeated dose toxicity: Chronic overexposure has been shown to cause adverse kidney effects in experimental animals.

Genetic toxicity
Assessment of mutagenicity: 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
Assessment of 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
Assessment of reproduction 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
No reports of ill effects provided product was correctly handled and processed.
Information on: 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
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. No toxic effects occur within the range of solubility.

Aquatic invertebrates
EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
Nominal concentration. The product has low solubility in the test medium. An eluate has been tested. No toxic effects occur within the range of solubility. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants
EC50 (72 h) > 100 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)
Nominal concentration. The product has low solubility in the test medium. An eluate has been tested. No toxic effects occur within the range of solubility. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Aquatic toxicity
Information on: Pentane
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms.

Persistence and degradability

Assessment biodegradation and elimination (H_2O)
In accordance with the required stability the product is not readily biodegradable. The product has not been tested. The statement has been derived from the structure of the product. The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

Based on the data available concerning eliminability/degradation and bioaccumulation potential, longer-term harm to the environment is improbable. No data available concerning biodegradation and elimination.

Bioaccumulative potential

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

Mobility in soil

Assessment transport between environmental compartments
Study scientifically not justified.

Additional information

Add. remarks environm. fate & pathway:
Because of the product's consistency and low water solubility, bioavailability is improbable.

Other ecotoxicological advice:
At the present state of knowledge, no negative ecological effects are expected. No toxic effects occur within the range of solubility.

Information on: Pentane
Other ecotoxicological advice:
The substance has a very low Global Warming Potential and no Ozone Depleting Potential.

13. Disposal considerations

Container disposal:
Remove all packaging for recovery or disposal

14. Transport information

Land transport
TDG

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

Sea transport
IMDG

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

Air transport
IATA/ICAO

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

15. Regulatory Information

Federal Regulations: Not applicable

NFPA Hazard codes:
Health : 1 Fire: 2 Reactivity: 0 Special:

HMIS III rating
Health: 1 Flammability: 2 Physical hazard:0

16. Other 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.