

# Safety Data Sheet

## STYROPEK® P40 Series

Revision date: 07/07/2022

Version: 4

# Styropek

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### 1. Identification

#### Product identifier used on the label

### STYROPEK® P40 Series

P240H, P240AH, P340H, P440H, P440MH

#### Recommended use of the chemical and restriction on use

Recommended use\*: for industrial processing only; Expanding-agent containing plastic for the production of 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 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 0500

#### Manufacturer / importer:

STYROPEK S.A. DE C.V.

#### Emergency telephone number

24 Hour Emergency Response Information

SETIQ México: 01 800 0021400

CHEMTREC: 01 800 424-9300  
832-446-6154 (in USA)  
Int.: +1-703-527-3887

Manufacturing plant: +52 833 500 2400 Ext: 3910, +52 833 218 0741

#### Other means of identification

**Chemical name:** Polystyrene  
**Commercial name:** Styropek P40  
**Chemical family:** Polymer  
**Synonyms:** Expandable Polystyrene

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## 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 Statement:

EUH018                      In use may form flammable/explosive vapour-air mixture.

Precautionary Statement:

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.

### Hazards not otherwise classified

May cause some eye irritation which should cease after removal of the product.

Labeling of special preparations (GHS):

Product releases a flammable hydrocarbon.

**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.

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### 3. Composition / Information on Ingredients

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

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
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

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

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### 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.

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### 5. Fire-Fighting Measures

#### **Extinguishing media**

Suitable extinguishing media: water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons: water jet

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### Special hazards arising from the substance or mixture

Hazards during fire-fighting:

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 fire-fighting:

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

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## 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. Vapours 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.

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## 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 vapours reaching the cellar, sewage water and pits. Empty containers may contain flammable residue.

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### 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 build up 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.

### CAUTION:

READ CAREFULLY AND OBSERVE BEFORE OPENING, DURING VENTILATION AND DURING CARGO DOWNING.

IMDG code: class3  
UN-No. 2211  
Polystyrene beads,  
expandable, cont.: Contains  
evolving flammable vapours.

### PRECAUCIÓN:

LEA CUIDADOSAMENTE Y OBSERVE ANTES DE LA APERTURA, DURANTE LA VENTILACIÓN DURANTE LA DESCARGA

NO SMOKING



NO FUMAR

NO FIRE/  
NAKED LIGHT



NO FUEGO/  
NO FUEGO  
ABIERTO

NO WELDING



NO SOLDAR

NO SPARKS  
FROM TOOLS



NO CHISPAS DE  
HERRAMIENTAS

BEFORE UNLOADING  
KEEP DOORS OPEN  
AND VENTILATE FOR  
1 HOUR



ANTES DE DESCARGAR  
MANTENGA LAS PUERTAS  
ABIERTAS Y VENTILE  
POR 1 HORA

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### 8. Exposure Controls/Personal Protection

#### Components with occupational exposure limits

Pentane	Exposure limits NIOSH Pocket Guide to Chemical Hazards (US)	TWA value 600 ppm 1,800 mg/m <sup>3</sup> ; STEL value 760 ppm 2,250 mg/m <sup>3</sup> ; REL value 120 ppm 350 mg/m <sup>3</sup> ; Ceil_Time 610 ppm 1,800 mg/m <sup>3</sup> ;
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#### Personal protective equipment

##### **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.

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### 9. Physical and Chemical Properties

Form:	Beads	
Odor:	faint specific odour	
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 Products:	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)
Vapour pressure:	Not applicable	
Density:	Approx. 1.02 - 1.05 g/cm <sup>3</sup>	(20 °C)
Bulk density:	Approx. 600 kg/m <sup>3</sup>	(20 °C)
Vapour density:	Heavier than air.	
Partitioning coefficient noctanol/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	
Evaporation rate:	solvent(s): aromatic hydrocarbons, ketones, organic solvents, The product is a non-volatile solid.	

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### 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

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.

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### 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

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### 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

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## 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), *Desmodium 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<sub>2</sub>O)

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.

On the basis of 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.

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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.*

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### 13. Disposal considerations

#### Container disposal:

Remove all packaging for recovery or disposal

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### 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

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### 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

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The logo for Styropek features the brand name in a dark grey, sans-serif font. The letter 'o' is replaced by a stylized green circular icon with a white swoosh, suggesting a globe or a leaf.

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### 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.

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