

Safety Data Sheet

STYROPOR BF -222

Revision date : 2011/02/15

Version: 2.0

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(30246572/SDS_GEN_US/EN)

1. Product and Company Identification

Company

BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Chemical family: polystyrene

2. Hazards Identification

Emergency overview**WARNING:**

PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
FLAMMABLE.

Eye wash fountains and safety showers must be easily accessible.

Use with local exhaust ventilation.

Avoid contact with the skin, eyes and clothing.

State of matter: solid

Colour: white

Odour: of pentane

Potential health effects**Primary routes of exposure:**

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Contact with molten product may cause thermal burns.

Irritation / corrosion:

Frequent and prolonged contact can lead to skin irritation.

Sensitization:

No data available concerning sensitizing effects.

Chronic toxicity:

Genotoxicity: The chemical structure does not suggest such an effect.

Potential environmental effects

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Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

Degradation / environmental fate:

On the basis of the data available concerning eliminability/degradation and bioaccumulation potential, longer-term harm to the environment is improbable.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
9003-53-6	> 90.0 %	polystyrene
109-66-0	> 1.0 - < 5.0 %	Pentane
78-78-4	< 2.0 %	isopentane
25637-99-4	< 0.5 %	hexabromocyclododecane

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. If difficulties occur: Seek medical attention.

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: Seek medical attention.

Note to physician

Treatment: Treat according to the symptoms under clinical conditions.

5. Fire-Fighting Measures

Flash point:	175 - 185 °F	(ASTM D3278)
Autoignition:	285 °C	(DIN 51794)
Lower explosion limit:	1.4 %(V)	(air)
Upper explosion limit:	8.3 %(V)	(air)
Flammability:	not highly flammable	(UN Test N.1 (ready combustible solids))
Self-ignition temperature:		not self-igniting

Suitable extinguishing media:

dry powder, water spray, carbon dioxide, foam

Hazards during fire-fighting:

Substance/product is dangerous when exposed to heat or flames.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

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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. Vapours 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

Personal precautions:

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.

Environmental precautions:

Discharge into the environment must be avoided. Do not release untreated into natural waters. This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund').

Cleanup:

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.

Further information:

High risk of slipping due to leakage/spillage of product.

7. Handling and Storage

Handling

General advice:

Handle in accordance with good industrial hygiene and safety practice. Upon delivery, trailer and/or container should be opened and allowed to vent for a minimum of one (1) 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. Use antistatic tools. Provide good room ventilation even at ground level (vapours are heavier than air). 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. Ensure adequate ventilation. The substance/ product may be handled only by appropriately trained personnel.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. May be ignited by heat, sparks or flames. Substance/product is capable of accumulating a static charge which could act as an ignition source. Use antistatic tools. Wear non-sparking safety shoes. Ground conductive equipment properly to prevent electrostatic discharge. Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition.

Storage

General advice:

Store containers in a cool, well-ventilated, fire resistant location. Avoid all sources of ignition: heat, sparks, open flame. Partial containers should be stored with the inner poly bag sealed off as close to the content as possible to reduce vapour accumulation in the liner; vapour may also accumulate inside container above liner.

Storage incompatibility:

General advice: Segregate from strong oxidizing agents.

Storage stability:

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

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8. Exposure Controls and Personal Protection

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

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:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear safety goggles (chemical goggles) if there is potential for airborne dust exposures.

Body protection:

Anti-static protective clothing, Antistatic safety shoes

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	beads	
Odour:	of pentane	
Colour:	white	
pH value:		not soluble
softening point:	approx. 160 °F	
Density:	approx. 1.02 - 1.05 g/cm ³	(20 °C)
Bulk density:	approx. 550 - 650 kg/m ³	(20 °C)
Vapour density:		Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Solubility in water:		not soluble
Miscibility with water:		immiscible
Solubility (qualitative):	soluble	
	solvent(s): aromatic hydrocarbons, organic solvents, ketones,	

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid electro-static discharge.

Substances to avoid:

strong oxidizing agents, aromatic solvents

Hazardous reactions:

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

Decomposition products:

Possible thermal decomposition products: gases/vapours, monomers, cyclic low molecular weight oligomers, oxides, hydrocarbons

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Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

Not an oxidizer.

11. Toxicological information

Acute toxicity

Information on: Pentane

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. EU-classification

Information on: isopentane

Assessment of acute toxicity:

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

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

Information on: isopentane

Assessment of irritating effects:

Skin contact may cause irritation and dermatitis.

Information on: Pentane

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Skin:

Result: non-irritant

Eye:

Result: non-irritant

Sensitization

Information on: Pentane

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Result: Non-sensitizing.

Repeated dose toxicity

Information on: isopentane

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Assessment of repeated dose toxicity:

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

12. Ecological Information

Aquatic toxicity

Information on: Pentane

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms.

Degradability / Persistence

Biological / Abiological Degradation

Evaluation: Non-biodegradable.

Bioaccumulation

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

Because of the product's consistency and low water solubility, bioavailability is improbable.

13. Disposal considerations

Waste disposal of substance:

This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund'). 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

Land transport

USDOT

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

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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

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories):

Not hazardous;

State regulations

State RTK

MA, PA

MA, NJ, PA

CAS Number

109-66-0

78-78-4

Chemical name

Pentane

isopentane

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

16. Other Information

HMIS III rating

Health: 1 Flammability: 2 Physical hazard: 0

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

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.

MSDS Prepared by:

BASF NA Product Regulations

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MSDS Prepared on: 2011/02/15

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