

BASF Corporation

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Safety data sheet
STYROPOR® BFL 222Revision date : 2004/02/17
Version: 2.0Page: 1/7
(30079324/MDS_GEN_US/EN)**1. Substance/preparation and company identification****Company**
BASF Corporation
3000 Continental Drive - North
Mount Olive, NJ 07828-1234**24 Hour Emergency Response Information**
CHEMTREC: (800) 424-9300
BASF HOTLINE: (800) 832-HELP

Chemical family: polystyrene

2. Composition/information on ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
9003-53-6	>= 95.0 %	polystyrene
109-66-0	<= 4.0 %	Pentane
78-78-4	<= 1.0 %	isopentane
3194-55-6	<= 1.0 %	1,2,5,6,9,10-Hexabromocyclododecane

3. Hazard 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.

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.

Information on: Pentane

Inhalation of high concentrations of pentane vapors irritates the respiratory tract. Exposure to 5000 ppm for 10 minutes did not cause irritation in humans, however, topical applications of pentane caused burning and itching. Very high concentrations up to 12,000 ppm resulted in narcosis and CNS effects in experimental animals. Aspiration into the lungs results in chemical pneumonitis, pulmonary edema, and hemorrhage. Pentane is toxic by ingestion and results in gastric disturbances.

Information on: Isopentane

Repeated or prolonged skin contact with isopentane may cause irritation and dermatitis. Direct contact with the lung tissue may produce chemical pneumonitis and pulmonary edema. Exposure to high vapor concentration in confined spaces may produce unconsciousness or even death.

Irritation:

Frequent and prolonged contact can lead to skin irritation.

Sensitization:

No data available concerning sensitizing effects

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(30079324/MDS_GEN_US/EN)**Repeated dose toxicity:**

No data available concerning repeated dose toxicity.

Medical conditions aggravated by overexposure:

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

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:	225 - 235 °F	(ASTM D3278)
Lower explosion limit:	1.4 %(V)	(air)
Upper explosion limit:	8.5 %(V)	(air)

Suitable extinguishing media:

dry extinguishing media, water, 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.

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.

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(30079324/MDS_GEN_US/EN)**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. 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: 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

Components with workplace control parameters

Pentane	OSHA	PEL 1,000 ppm 2,950 mg/m ³ ;
	ACGIH	TWA value 600 ppm ;
isopentane	ACGIH	TWA value 600 ppm ;

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:	7	
softening temperature:	approx. 160 °F	
Density:	approx. 1.02 - 1.05 g/cm ³	
Bulk density:	550 - 650 kg/m ³	
Vapour density:		Heavier than air.
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

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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

Corrosion to metals:

No corrosive effect on metal.

11. Toxicological information**Acute toxicity****Oral:**

LD50/ > 2.000 mg/kg

Inhalation:

LC50/ > 5 mg/l

Dermal:

LD50/ > 2.000 mg/kg

Skin irritation:

non-irritant

Eye irritation :

non-irritant

Sensitization:

Non-sensitizing.

12. Ecological information

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.

Contaminated packaging:

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

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(30079324/MDS_GEN_US/EN)**14. Transport information**Reference Bill of Lading**15. Regulatory information**Federal RegulationsRegistration status:
TSCA, US released / listed

SARA hazard categories (EPCRA 311/312): Acute, Fire

State regulations

State RTK

CAS Number
109-66-0
78-78-4Chemical name
Pentane
isopentaneState RTK
MA, NJ, PA
MA, NJ, PA**16. Other information**HMIS III rating

Health: 1 Flammability: 2 Physical hazard: 0

HMIS uses 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 high hazard.

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