

Urethane Specialties

**ELASTOPOR® P 18830 R Resin / ELASTOPOR® P 1001 U Isocyanate****DESCRIPTION AND USES:**

**The Elastopor® P 18830 R System** is a two-component 0.5 pcf density packaging formulation polyurethane system designed for foam-in place applications. This low viscosity foam formulation can be processed through E-Z Flow polyurethane dispensing equipment. It is designed for custom-made packaging as well as for pre-molded packaging inserts. The cushioning foam provides excellent shock damping and product protection during shipping. The chemical formulation uses no CFC's (chlorofluorocarbons).

**PHYSICAL PROPERTIES : Using E-Z Flow Dispensing Equipment**

	<u>ASTM METHOD</u>	<u>TEST UNIT</u>	<u>ELASTOPOR® P 18830 R</u>
Core Density	D-1622	pcf	0.5 ± 0.10

**LIQUID PROPERTIES @ 75° F:**

	<u>ASTM METHOD</u>	<u>“A” (ISO)</u>	<u>“B”(POLYOL)</u>
Viscosity (cps)	D-1638	200 ± 50	330 ± 100
Specific Gravity (g/cc)	D-1638	1.22	1.02
Mixing Ratio (parts by volume)		50 “A”	50 “B”

**PROCESSING PARAMETERS @ 125° F:**

Cream Time	Seconds -- 7 to 9
Rise Time	Seconds -- 17 to 21
Tack Free Time	Seconds -- 24 to 30

**CERTIFICATIONS**

General Specifications for foam-in place packaging.

MIL-P-26514

MIL-P-83671

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“Warning” These products can be used to prepare a variety of polyurethane products. Polyurethanes are organic materials and must be considered combustible.

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Orange, CA 92865  
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# Safety data sheet

## ELASTOPOR<sup>®</sup> P1001U ISOCYANATE

Revision date : 2006/03/17  
Version: 2.1

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(30231832/MDS\_GEN\_CA/EN)

### 1. Substance/preparation and company identification

Company  
BASF Canada  
100 Milverton Drive, 5th Floor  
Mississauga, ON L5R 4H1

24 Hour Emergency Response Information  
CANUTEC (reverse charges): (613) 996-6666  
BASF HOTLINE (800) 454-COPE (2673)

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Molecular weight:	360 g/mol
Chemical family:	aromatic isocyanates, isocyanate
Synonyms:	POLYMETHYLENE POLYPHENYLISOCYANATE

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### 2. Hazardous ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Hazardous ingredients</u>
101-68-8	>= 30.0 - <= 60.0 %	Diphenylmethane-4,4'-diisocyanate (MDI)
26447-40-5	>= 5.0 - <= 10.0 %	Methylenediphenyl diisocyanate
9016-87-9	>= 30.0 - <= 60.0 %	P-MDI

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### 3. Hazard identification

#### Emergency overview

Irritating to eyes, respiratory system and skin.  
May cause sensitization by inhalation.

#### Potential health effects

**Acute toxicity:**  
May cause sensitization by inhalation.

**Irritation:**  
Irritating to eyes, respiratory system and skin.

#### **Medical conditions aggravated by overexposure:**

The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing.  
Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended.  
An animal study indicated that MDI may induce respiratory hypersensitivity following dermal exposure.

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### 4. First-aid measures

**If inhaled:**  
Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary.  
Immediate medical attention required.

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**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. Immediate medical attention required.

**If swallowed:**

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

**Note to physician****Hazards:**

Symptoms can appear later.

**Treatment:**

Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

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## 5. Fire-fighting measures

Flash point: 220 °C (open cup)  
Autoignition: No data available.

**Suitable extinguishing media:**

water, dry extinguishing media, carbon dioxide, foam

**Hazards during fire-fighting:**

nitrous gases, fumes/smoke, isocyanate, vapour

**Protective equipment for fire-fighting:**

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

**Further information:**

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## 6. Accidental release measures

**Personal precautions:**

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

**Environmental precautions:**

Do not discharge into drains/surface waters/groundwater.

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**Cleanup:**  
Dike spillage.

For small amounts: Pick up with suitable absorbent material. Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

For large amounts: If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes.

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## 7. Handling and storage

### Handling

**General advice:**

Mix thoroughly before use. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

**Protection against fire and explosion:**

No explosion proofing necessary.

### Storage

**General advice:**

Formation of CO<sub>2</sub> and build up of pressure possible. Keep container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

**Storage incompatibility:**

General: Segregate from bases.

**Storage stability:**

Protect against moisture.

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## 8. Exposure controls and personal protection

**Advice on system design:**

Provide local exhaust ventilation to maintain recommended P.E.L.

### Personal protective equipment

**Respiratory protection:**

Wear a NIOSH-certified self-contained breathing apparatus or full face supplied air respirator.

**Hand protection:**

Chemical resistant protective gloves (EN 374), Suitable materials, Rubber gloves, Plastic gloves

**Eye protection:**

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

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**Body protection:**

safety shoes (f.e. according to EN 20346)

**General safety and hygiene measures:**

Wear protective clothing as necessary to prevent contact. No eating, drinking, smoking or tobacco use at the place of work. Take off immediately all contaminated clothing. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

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### 9. Physical and chemical properties

Form:	liquid	
Odour:	faint odour, aromatic	
Odour threshold:	No data available.	
Colour:	dark brown	
pH value:		No data available.
Freezing point:	3 °C	( 1 ATM)
Boiling point:	200 °C	( 5 mmHg)
Vapour pressure:	< 0.00001 mmHg	( 20 °C)
Density:	1.22 g/cm <sup>3</sup>	( 20 °C)
Relative density:	1.22	( 25 °C)
Bulk density:	10.16 lb/USg	
Viscosity, dynamic:	200 mPa.s	( 20 °C)
Miscibility with water:		Reacts with water.

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### 10. Stability and reactivity

**Conditions to avoid:**

Avoid moisture.

**Substances to avoid:**

acids, alcohols, amines, water, Alkalines

**Hazardous reactions:**

On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers. Risk of bursting. Reacts with substances which contain active hydrogen.

**Decomposition products:**

Hazardous decomposition products: carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapours

**Thermal decomposition:**

> 230 °C

**Corrosion to metals:**

No corrosive effect on metal.

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### 11. Toxicological information

**Acute toxicity**

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**Oral:**

LD50/rat: > 10,000 mg/kg  
Practically nontoxic.

**Inhalation:**

LC50/rat: > 2.240 mg/l / 1 h  
Moderately toxic.

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## 12. Ecological information

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## 13. Disposal considerations

**Waste disposal of substance:**

Incinerate or dispose of in a licensed facility.  
Do not discharge substance/product into sewer system.

**Container disposal:**

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

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## 14. Transport information

**Land transport**

*TDG*

Not classified as a dangerous good under transport regulations

**Sea transport**

*IMDG*

Not classified as a dangerous good under transport regulations

**Air transport**

*IATA/ICAO*

Not classified as a dangerous good under transport regulations

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## 15. Regulatory information

**Federal Regulations****Registration status:**

DSL, CA

released / listed

## Safety data sheet

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**WHMIS classification:** D2A: Materials Causing Other Toxic Effects - Very toxic material



D2B: Materials Causing Other Toxic Effects - Toxic material



**THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.**

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#### 16. Other information

Recommended use: polyurethane component

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##### Local contact information

Product Safety  
416-675-3611

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END OF DATA SHEET

# Safety data sheet

## ELASTOPOR P 18830R RESIN

Revision date : 2009/08/03  
Version: 1.0

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(30494696/SDS\_GEN\_US/EN)

### 1. Substance/preparation and company identification

Company  
BASF CORPORATION  
100 Campus Drive  
Florham Park, NJ 07932

24 Hour Emergency Response Information  
CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP

Chemical family: resin  
Synonyms: Urethane System Resin Component

### 2. Composition/information on ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
7732-18-5	< 70.0 %	Polyol
	< 30.0 %	water
	< 2.0 %	Surfactant
	< 3.0 %	Catalyst

### 3. Hazard identification

#### Emergency overview

CAUTION: MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

#### 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:**

Ingestion may cause gastrointestinal disturbances.

##### **Irritation:**

Irritating to respiratory system. Irritating to eyes and skin.

*Information on: Polyol*

*Contact may result in skin irritation. Contact may result in eye irritation.*

##### **Sensitization:**

The chemical structure suggests a sensitizing effect. The product has not been tested. The statement has been derived from products of a similar structure and composition.

##### **Repeated dose toxicity:**

No known chronic effects.

##### **Medical conditions aggravated by overexposure:**



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## ELASTOPOR P 18830R RESIN

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

### **Potential environmental effects**

#### **Aquatic toxicity:**

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

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## 4. First-Aid Measures

#### **General advice:**

Remove contaminated clothing.

#### **If inhaled:**

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

#### **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. Immediate medical attention required.

#### **If swallowed:**

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

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## 5. Fire-Fighting Measures

Flash point:	> 93.30 °C	(open cup)
Autoignition:		Unspecified
Self-ignition temperature:		Unspecified

#### **Suitable extinguishing media:**

water, dry extinguishing media, carbon dioxide, foam

#### **Hazards during fire-fighting:**

No particular hazards known.

#### **Protective equipment for fire-fighting:**

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

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## 6. Accidental release measures

#### **Cleanup:**

Spills should be contained, solidified, and placed in suitable containers for disposal.

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# Safety data sheet

## ELASTOPOR P 18830R RESIN

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### 7. Handling and Storage

#### Handling

**Protection against fire and explosion:**  
No explosion proofing necessary.

#### Storage

**General advice:**  
No special precautions necessary. Avoid extreme heat. Store protected against freezing.

**Storage stability:**  
Storage temperature: 16 - 27 °C

### 8. Exposure controls and personal protection

**Advice on system design:**  
Provide local exhaust ventilation to control vapours/mists.

#### Personal protective equipment

**Respiratory protection:**  
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed.

**Hand protection:**  
Chemical resistant protective gloves

**Eye protection:**  
Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

**General safety and hygiene measures:**  
Avoid contact with skin. Handle in accordance with good industrial hygiene and safety practice. Wear protective clothing as necessary to prevent contact. Avoid inhalation of vapours/mists. Wash soiled clothing immediately.

### 9. Physical and Chemical Properties

Form:	liquid	
Odour:	almost odourless, mild	
Colour:	bronze to gold, clear	
pH value:	7.0	
Freezing point:	0.00 °C	The data given are those of the active ingredient.
Boiling point:	100.00 °C	( 760.000000 mmHg) The data given are those of the active ingredient.
Vapour pressure:		Unspecified
Density:	8.5100 lb/USg	( 23.00 °C)
Partitioning coefficient n-octanol/water (log Pow):		Unspecified
Viscosity, dynamic:	330.000 mPa.s	( 25.00 °C)
Solubility in water:		soluble
Miscibility with water:		soluble

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### 10. Stability and Reactivity

**Hazardous reactions:**

The product is chemically stable.

**Decomposition products:**

Hazardous decomposition products: carbon monoxide, carbon dioxide

**Thermal decomposition:**

No data available.

**Corrosion to metals:**

No corrosive effect on metal.

**Oxidizing properties:**

Not an oxidizer.

### 11. Toxicological information

**Chronic toxicity**

**Genetic toxicity:**

The substance was not mutagenic in bacteria.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

### 12. Ecological Information

**Environmental fate and transport**

**Biodegradation:**

Evaluation:

Biodegradable.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

**Environmental toxicity**

**Acute toxicity to aquatic invertebrates:**

Daphnia magna/EC50 (48 h): > 100 mg/l

### 13. Disposal considerations

**Waste disposal of substance:**

Incinerate in a licensed facility.

Dispose of in a licensed facility.

Do not discharge substance/product into sewer system.

**Container disposal:**

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Refer to 40 CFR § 261.7 (residues of hazardous waste in empty containers).

Decontaminate containers prior to disposal. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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### 14. Transport Information

Reference Bill of Lading

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### 15. Regulatory Information

#### Federal Regulations

##### Registration status:

TSCA, US released / listed

OSHA hazard category: No data available.

SARA hazard categories (EPCRA 311/312): Not hazardous

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### 16. Other Information

#### HMIS III rating

Health: 1 Flammability: 1 Physical hazard: 1

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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#### Local Contact Information

K\_ProdRegs@basf.com

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