

PRELIMINARY PRODUCT DATA

Urethane Specialties

ELASTOPOR® P 18820 R Resin / ELASTOPOR® P 1001 U Isocyanate**DESCRIPTION AND USES:**

The Elastopor® P 18820 R System is a two-component 0.4 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 18820 R</u>
Core Density	D-1622	pcf	0.4 ± 0.10

LIQUID PROPERTIES @ 75° F:

	<u>ASTM METHOD</u>	<u>"A" (ISO)</u>	<u>"B"(POLYOL)</u>
Viscosity (cps)	D-1638	200 ± 50	300 ± 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 -- 8 to 10
Rise Time	Seconds -- 20 to 25
Tack Free Time	Seconds -- 33 to 38

CERTIFICATIONS

General Specifications for foam-in place packaging.

MIL-P-26514

MIL-P-83671

Important! The information, data and products presented herein are based upon information reasonably available to BASF Corporation at the time of publication, and are presented in good faith, but are not to be construed as Guarantees or warranties express or implied, regarding performance, results to be obtained from comprehensiveness merchantability, or that said information, data or products can be used without infringing patents of third parties. You should thoroughly test any application, and independently determine satisfactory performance before commercialization.

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

BASF Corporation
138 E. Meats Ave.
Orange, CA 92865
(714) 921-1430
1-800-488-2259

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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Urethane Specialties

ELASTOPOR® P 18840 R Resin / ELASTOPOR® P 1001 U Isocyanate**DESCRIPTION AND USES:**

The Elastopor® P 18840 R System is a two-component 0.8 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 18840 R</u>
Core Density	D-1622	pcf	0.8 ± 0.20

LIQUID PROPERTIES @ 75° F:

	<u>ASTM METHOD</u>	<u>"A" (ISO)</u>	<u>"B"(POLYOL)</u>
Viscosity (cps)	D-1638	200 ± 50	400 ± 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 -- 8 to 10
Rise Time	Seconds -- 18 to 24
Tack Free Time	Seconds -- 32 to 40

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.

BASF Corporation
138 E. Meats Ave.
Orange, CA 92865
(714) 921-1430
1-800-488-2259

Safety data sheet

ELASTOPOR[®] 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)

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

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

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.

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.

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.

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.

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 CO₂ 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.

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.

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 ³	(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.

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.

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.

12. Ecological information

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.

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

15. Regulatory information

Federal Regulations**Registration status:**

DSL, CA

released / listed

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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.

16. Other information

Recommended use: polyurethane component

Local contact information

Product Safety
416-675-3611

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END OF DATA SHEET

Safety data sheet

ELASTOPOR P 18820R RESIN

Revision date : 2009/08/03
Version: 1.0

Page: 1/6
(30494046/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	< 65.0 %	Polyol
108-01-0	< 40.0 %	water
	< 2.0 %	2-dimethylaminoethanol
	< 3.0 %	Catalyst
	< 2.0 %	Surfactant

3. Hazard identification

Emergency overview

CAUTION: MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
SEVERELY IRRITATING TO EYES, SKIN, RESPIRATORY TRACT.
CORROSIVE TO SKIN.
SENSITIZER.

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.

Information on: 2-dimethylaminoethanol

Of moderate toxicity after short-term skin contact.

Of moderate toxicity after single ingestion.

Of pronounced toxicity after short-term inhalation.

Irritation:

Irritating to respiratory system.

Information on: 2-dimethylaminoethanol

Corrosive! Damages skin and eyes. May cause severe damage to the eyes. Information on: Polyol

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

Sensitization:

The chemical structure does not suggest a sensitizing effect.

Information on: 2-dimethylaminoethanol

Skin sensitizing effects were not observed in animal studies.

Repeated dose toxicity:

No known chronic effects.

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.

See MSDS section 11 - Toxicological information.

Potential environmental effects

Aquatic toxicity:

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

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. Immediate medical attention required.

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:

carbon monoxide, carbon dioxide, Hydrogen chloride, nitrogen oxides, Phosphorus compounds
The substances/groups of substances mentioned can be released in case of fire.

No particular hazards known.

Protective equipment for fire-fighting:

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

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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6. Accidental release measures

Personal precautions:

Use personal protective clothing.

Environmental precautions:

Do not empty into drains. Do not discharge into the subsoil/soil.

Cleanup:

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

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

Further information:

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

7. Handling and Storage

Handling

General advice:

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

No explosion proofing necessary.

Storage

General advice:

No special precautions necessary. Avoid extreme heat. Store protected against freezing.

Storage incompatibility:

General: Segregate from foods and animal feeds. Segregate from acids. Segregate from oxidants.

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.

Hand protection:

Chemical resistant protective gloves

Eye protection:

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

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ELASTOPOR P 18820R RESIN

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General safety and hygiene measures:

Avoid contact with skin. Wear protective clothing as necessary to prevent contact. Avoid inhalation of vapours/mists. Handle in accordance with good industrial hygiene and safety practice. 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:	300.000 mPa.s	(25.00 °C)
Solubility in water:		soluble
Miscibility with water:		soluble

10. Stability and Reactivity

Conditions to avoid:

Avoid moisture.

Substances to avoid:

acids, oxidizing agents, isocyanates

Hazardous reactions:

The product is chemically stable.

Decomposition products:

Hazardous decomposition products:
carbon monoxide, carbon dioxide

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Oxidizing properties:

Not an oxidizer.

11. Toxicological information

Skin irritation:

Information on: 2-dimethylaminoethanol
rabbit: Corrosive. (OECD Guideline 404)

Chronic toxicity

Genetic toxicity:

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The chemical structure does not suggest a mutagenic effect.

Carcinogenicity:

The chemical structure does not suggest a specific alert for such an effect.

Other Information:

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: Poorly biodegradable.

Adsorbable organically-bound halogen (AOX):

The product contains according to the formulation, organically bound halogen. It can increase the AOX-value in the water purification plants overflow or if it reaches waters.

Environmental toxicity

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. The product has not been tested. The statement has been derived from products of a similar structure and composition.

13. Disposal considerations

Waste disposal of substance:

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

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.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Federal Regulations

Registration status:

TSCA, US

released / listed

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ELASTOPOR P 18820R RESIN

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OSHA hazard category: No data available.

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

State regulations

State RTK

CAS Number

108-01-0

Chemical name

2-dimethylaminoethanol

State RTK

MA, NJ, PA

16. Other Information

Recommended use: polyurethane component
Suitable for use in industrial sector: Polymers industry

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.

Local Contact Information

K_ProdRegs@basf.com

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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

Revision date : 2009/08/03

Version: 1.0

Page: 2/5

(30494696/SDS_GEN_US/EN)

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.

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.

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.

6. Accidental release measures

Cleanup:

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

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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

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

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.

Local Contact Information

K_ProdRegs@basf.com

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END OF DATA SHEET

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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	< 90.0 %	Polyol
	< 12.0 %	water
	< 1.0 %	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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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.

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.

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.

6. Accidental release measures

Cleanup:

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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.

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Viscosity, dynamic:	520.000 mPa.s	(25.00 °C)
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