

POURABLE SEALER S-10 PART B

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation:

Synonyms: none
 CAS No. : N.A.
 EC index No. : N.A. NFPA code : N.D.
 EINECS No. : N.A. Molecular weight : N.A.
 RTECS No. : N.A. Formula : N.A.

1.2 Use of the substance or the preparation:
 Construction: Sealing compound

1.3 Company/undertaking identification:

Firestone Building Products
 Ikaroslaan 75
 B-1930 Zaventem
 Tel. : +32 2 711 44 50
 Fax : +32 2 721 27 18
 Email: info@fbpe.be

1.4 Telephone number for emergency:

+32 70 245 245
 Poison Centre
 p/a Militair Hospitaal Koningin Astrid, Bruynstraat 1, B-1120 Brussel

2. Composition/information on ingredients

Hazardous ingredients	CAS No. EINECS/ELINCS No.	Conc. in %	Hazard symbol	Risks (R-phrases)
carbon black	1333-86-4 215-609-9	16.6	-	-
diphenylmethane-4,4'-diisocyanate	101-68-8 202-966-0	41.7	Xn	20-36/37/38-42/43(1)
polymethylene polyphenyl isocyanate	9016-87-9 -	41.7	Xn	20-36-40-42/43(1)

(1) For R-phrases in full: see heading 16

3. Hazards identification

- Harmful by inhalation
- Irritating to eyes, respiratory system and skin
- Limited evidence of a carcinogenic effect
- May cause sensitisation by inhalation and skin contact

4. First aid measures

4.1 Eye contact:

- Consult a doctor/medical service if irritation persists
- Rinse immediately with plenty of water
- Do not apply neutralizing agents

4.2 Skin contact:

- Consult a doctor/medical service if irritation persists
- Clean with alcohol
- Wash with water and soap

Printing date : 02-2006
 Compiled by : Brandweerinformatiecentrum voor Gevaarlijke Stoffen vzw (BIG)
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MSDS established : 18-01-2006 Revision date :
 Reference number : BIG\43105GB Revision number : 000
 Reason for revision :

POURABLE SEALER S-10 PART B

4.3 After inhalation:

- Consult a doctor/medical service if breathing problems develop
- Remove the victim into fresh air
- Unconscious: maintain adequate airway and respiration

4.4 After ingestion:

- Consult a doctor/medical service if you feel unwell
- Never give water to an unconscious person
- Do not induce vomiting

5. Fire-fighting measures

5.1 Suitable extinguishing media:

- Polyvalent foam
- BC powder
- Carbon dioxide

5.2 Unsuitable extinguishing media:

- No data available

5.3 Special exposure hazards:

- Not easily combustible
- On heating: release of toxic/combustible gases/vapours (hydrogen cyanide)
- On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide)

5.4 Instructions:

- Cool tanks/drums with water spray/remove them into safety
- Dilute toxic gases with water spray
- Do not move the load if exposed to heat

5.5 Special protective equipment for firefighters:

- Heat/fire exposure: compressed air/oxygen apparatus
- Protective clothing for exposure to chemicals

6. Accidental release measures

6.1 Personal protection/precautions:

See heading 8.2/8.3/13

6.2 Environmental precautions:

- Contain released substance, pump over in suitable containers
- Plug the leak, cut off the supply

6.3 Methods for cleaning up:

- Do not take up into combustible material such as: saw dust
- Take up liquid spill into dry absorbent material e.g.: sand/earth
- Scoop absorbed substance into closing containers
- Clean contaminated surfaces with an excess of water
- Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

- Observe very strict hygiene - avoid contact
- Avoid contact of substance with water
- Remove contaminated clothing immediately
- Clean contaminated clothing

7.2 Storage:

- Keep container tightly closed
- Store at room temperature
- Keep out of direct sunlight
- Store in a dry area
- Keep away from: heat sources, acids, bases, alcohols, amines, water/moisture

POURABLE SEALER S-10 PART B

Storage temperature	: 15/26	°C
Quantity limits	: N.D.	kg
Storage life	: 365	days

Materials for packaging :

- suitable :no data available
- to avoid :no data available

7.3 Specific uses:
 - See information supplied by the manufacturer

8. Exposure controls/Personal protection

8.1 Exposure limit values:

carbon black

TLV-TWA	: 3.5	mg/m ³		ppm
TLV-STEL	: -	mg/m ³		ppm
OES-LTEL	: 3.5	mg/m ³	-	ppm
OES-STEL	: 7	mg/m ³	-	ppm
MAK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: 3.5	mg/m ³		
MAC-TGG 15 min.	:	mg/m ³		
VME-8 h	: 3.5	mg/m ³	-	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: 3.6	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm
Momentary value	:	mg/m ³		ppm
EC	:	mg/m ³		ppm
EC-STEL	:	mg/m ³		ppm

diphenylmethane-4,4'-diisocyanate

TLV-TWA	:	mg/m ³	0.005	ppm
TLV-STEL	:	mg/m ³	-	ppm
MEL-LTEL	: 0.02(-NCO)	mg/m ³	-	ppm
MEL-STEL	: 0.07(-NCO)	mg/m ³	-	ppm
MAK	: 0.05 aeros.	mg/m ³		ppm
MAC-TGG 8 h	: 0.05	mg/m ³		
MAC-TGG 15 min.	: 0.21	mg/m ³		
VME-8 h	: 0.1	mg/m ³	0.01	ppm
VLE-15 min.	: 0.2(5 min)	mg/m ³	0.02(5 min)	ppm
GWBB-8 h	: 0.052	mg/m ³	0.005	ppm
GWK-15 min.	: -	mg/m ³	-	ppm
Momentary value	:	mg/m ³		ppm
EC	:	mg/m ³		ppm
EC-STEL	:	mg/m ³		ppm

POURABLE SEALER S-10 PART B

polymethylene polyphenyl isocyanate

TLV-TWA
TLV-STEL

MEL-LTEL : 0.02(-NCO) mg/m³ - ppm
MEL-STEL : 0.07(-NCO) mg/m³ - ppm

MAK : - mg/m³ - ppm

MAC-TGG 8 h
MAC-TGG 15 min.

VME-8 h
VLE-15 min.

GWBB-8 h
GWK-15 min.
Momentary value

EC
EC-STEL

Sampling methods:

- Methylene Bisphenyl Isocyanate (MDI)	OSHA 47
- 4,4-Methylene Bisphenyl Isocyanate (MDI) (Isocyanates)	NIOSH 5521
- Papi	OSHA CSI
- Carbon Black	NIOSH 5000
- Carbon Black	OSHA ID 196
- Isocyanates	NIOSH 5521
- Isocyanates	NIOSH 5522

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

- Measure the concentration in the air regularly
- Work under local exhaust/ventilation

8.2.2 Environmental exposure controls: see heading 13

8.3 Personal protection:

8.3.1 respiratory protection:

- High vapour concentration: gas mask with filter A

8.3.2 hand protection:

- Gloves
Suitable materials: Natural rubber
Nitrile rubber
- Breakthrough time: N.D.

8.3.3 eye protection:

- Face shield

8.3.4 skin protection:

- Protective clothing
Suitable materials: Natural rubber
Nitrile rubber

POURABLE SEALER S-10 PART B

9. Physical and chemical properties

9.1 General information:

Appearance (at 20°C) : Liquid
Odour : Mild
Colour : Black

9.2 Important health, safety and environmental information:

pH value : N.D.
Boiling point/boiling range : 341 °C
Flashpoint : 218 °C
Explosion limits : N.D. vol% (°C)
Vapour pressure (at 20°C) : < 0.01 hPa
Vapour pressure (at 50°C) : N.D. hPa
Relative density (at 20°C) : 1.5
Water solubility : Reacts with water
Soluble in : Organic solvents
Relative vapour density : > 2
Viscosity : N.D. Pa.s
Partition coefficient n-octanol/water : N.D.
Evaporation rate :
ratio to butyl acetate : N.D.
ratio to ether : N.D.

9.3 Other information:

Melting point/melting range : N.D. °C
Auto-ignition point : N.D. °C
Saturation concentration : N.D. g/m³

10. Stability and reactivity

10.1 Conditions to avoid/reactivity:

- Unstable on exposure to moisture

10.2 Materials to avoid:

- Keep away from: heat sources, acids, bases, alcohols, amines, water/moisture

10.3 Hazardous decomposition products:

- Reacts violently with water (moisture): release of carbon dioxide
- With pressure build-up may cause closed container to burst
- On heating: release of toxic/combustible gases/vapours (hydrogen cyanide)
- On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide)
- Reacts exothermically with (some) acids/bases, alcohols and amines

11. Toxicological information

11.1 Acute toxicity:

LD50 oral rat : N.D. mg/kg
LD50 dermal rat : N.D. mg/kg
LD50 dermal rabbit : N.D. mg/kg
LC50 inhalation rat : N.D. mg/l/4 h
LC50 inhalation rat : N.D. ppm/4 h

POURABLE SEALER S-10 PART B

11.2 Chronic toxicity:

EC carc. cat.	: 3
EC muta. cat.	: not listed
EC repr. cat.	: not listed
Carcinogenicity (TLV)	: A4 (carbon black)
Carcinogenicity (MAC)	: not listed
Carcinogenicity (VME)	: not listed
Carcinogenicity (GWBB)	: not listed
Carcinogenicity (MAK)	: 3B (carbon black)(diphenylmethane-4,4'-diisocyanate) (polymethylene polyphenyl isocyanate)
Mutagenicity (MAK)	: not listed
Teratogenicity (MAK)	: - (carbon black)(diphenylmethane-4,4'-diisocyanate) (polymethylene polyphenyl isocyanate)
IARC classification	: 2B (carbon black)
IARC classification	: 3 (diphenylmethane-4,4'-diisocyanate)

11.3 Routes of exposure: ingestion, inhalation, eyes and skin

11.4 Acute effects/symptoms:

- **AFTER INHALATION**
- Irritation of the respiratory tract
- Irritation of the nasal mucous membranes
- Dry/sore throat
- FOLLOWING SYMPTOMS MAY APPEAR LATER:
- Risk of pneumonia
- Risk of lung oedema
- Respiratory difficulties
- **AFTER INGESTION**
- Irritation of the gastric/intestinal mucosa
- **AFTER SKIN CONTACT**
- Tingling/irritation of the skin
- **AFTER EYE CONTACT**
- Irritation of the eye tissue
- Lacrimation

11.5 Chronic effects:

- May cause sensitization by skin contact
- May cause sensitization by inhalation
- No certainty about human carcinogenic properties
- Not listed in mutagenicity class (EC,MAK)
- Not classified as toxic to reproduction (EC)
- **ON CONTINUOUS/REPEATED EXPOSURE/CONTACT:**
- Itching
- May stain the skin
- Skin rash/inflammation
- Feeling of weakness
- Coughing
- Possible inflammation of the respiratory tract
- Respiratory difficulties

POURABLE SEALER S-10 PART B

12. Ecological information

12.1 Ecotoxicity:

- No data available

12.2 Mobility:

- Volatile organic compounds (VOC): N.D. %
- Oplosbaar in water
- Insoluble in water

For other physicochemical properties see heading 9

12.3 Persistence and degradability:

- biodegradation BOD₅ : N.D. % ThOD
- water : - No data available
- soil : T ½: N.D. days

12.4 Bioaccumulative potential:

- log P_{ow} : N.D.
- BCF : N.D.

12.5 Other adverse effects:

- WGK : 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- Effect on the ozone layer : Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect : no data available
- Effect on waste water purification : no data available

13. Disposal considerations

13.1 Provisions relating to waste:

- Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 05 01* (waste isocyanates)
- Hazardous waste (91/689/EEC)

13.2 Disposal methods:

- Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste
- Do not discharge into drains or the environment

13.3 Packaging/Container:

- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10* (packaging containing residues of or contaminated by dangerous substances)

POURABLE SEALER S-10 PART B

14. Transport information

- 14.1 Classification of the substance in compliance with UN Recommendations
- | | | |
|----------------------|---|-------------|
| UN number | : | - |
| CLASS | : | NOT SUBJECT |
| SUB RISKS | : | |
| PACKING | : | |
| PROPER SHIPPING NAME | : | |
- 14.2 ADR (transport by road)
- | | | |
|-----------------------|---|-------------|
| CLASS | : | NOT SUBJECT |
| PACKING | : | |
| CLASSIFICATION CODE | : | |
| DANGER LABEL TANKS | : | |
| DANGER LABEL PACKAGES | : | |
- 14.3 RID (transport by rail)
- | | | |
|-----------------------|---|-------------|
| CLASS | : | NOT SUBJECT |
| PACKING | : | |
| CLASSIFICATION CODE | : | |
| DANGER LABEL TANKS | : | |
| DANGER LABEL PACKAGES | : | |
- 14.4 ADNR (transport by inland waterways)
- | | | |
|-----------------------|---|-------------|
| CLASS | : | NOT SUBJECT |
| PACKING | : | |
| CLASSIFICATION CODE | : | |
| DANGER LABEL TANKS | : | |
| DANGER LABEL PACKAGES | : | |
- 14.5 IMDG (maritime transport)
- | | | |
|------------------|---|-------------|
| CLASS | : | NOT SUBJECT |
| SUB RISKS | : | |
| PACKING | : | |
| MFAG | : | |
| EMS | : | |
| MARINE POLLUTANT | : | |
- 14.6 ICAO (air transport)
- | | | |
|---|---|-------------|
| CLASS | : | NOT SUBJECT |
| SUB RISKS | : | |
| PACKING | : | |
| PACKING INSTRUCTIONS PASSENGER AIRCRAFT | : | |
| PACKING INSTRUCTIONS CARGO AIRCRAFT | : | |
- 14.7 Special precautions in connection with transport
- | | | |
|--|---|--|
| | : | not restricted for any mode of international transport |
|--|---|--|

POURABLE SEALER S-10 PART B

15. Regulatory information

Classification according to directives 67/548/EEC and 1999/45/EC



Harmful

contains: diphenylmethane-4,4'-diisocyanate

R20	:	Harmful by inhalation
R36/37/38	:	Irritating to eyes, respiratory system and skin
R40	:	Limited evidence of a carcinogenic effect
R42/43	:	May cause sensitisation by inhalation and skin contact
S(02)	:	(Keep out of reach of children)
S23	:	Do not breathe vapour
S36/37	:	Wear suitable protective clothing and gloves
S45	:	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S(63)	:	(In case of accident by inhalation: remove casualty to fresh air and keep at rest) Contains isocyanates. See information supplied by the manufacturer.

POURABLE SEALER S-10 PART B

16. Other information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
(*) = INTERNAL CLASSIFICATION (NFPA)

Exposure limits:

TLV : Threshold Limit Value - ACGIH USA
OES : Occupational Exposure Standards - United Kingdom
MEL : Maximum Exposure Limits - United Kingdom
MAK : Maximale Arbeitsplatzkonzentrationen - Germany
TRK : Technische Richtkonzentrationen - Germany
MAC : Maximale aanvaarde concentratie - The Netherlands
VME : Valeurs limites de Moyenne d'Exposition - France
VLE : Valeurs limites d'Exposition à court terme - France
GWBB : Grenswaarde beroepsmatige blootstelling - Belgium
GWK : Grenswaarde kortstondige blootstelling - Belgium
EC : Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction = **T**: Total dust = **E**: Einatembarer Aerosolanteil
R : Respirable fraction = **A**: Alveolengängiger Aerosolanteil/Alveolar dust
C : Ceiling limit

a:	aerosol	r:	rook/Rauch	(fume)
d:	damp (vapour)	st:	stof/Staub	(dust)
du:	dust	ve:	vezel	(fibre)
fa:	Faser (fibre)	va:	vapour	
fi:	fibre	om:	oil mist	
fu:	fume	on:	olienevel/Ölnebel	(oil mist)
p:	poussière (dust)	part:	particles	

Chronic toxicity:

K : List of the carcinogenic substances and processes - The Netherlands

Full text of any R-phrases referred to under heading 2:

R20 : Harmful by inhalation
R36/37/38 : Irritating to eyes, respiratory system and skin
R40 : Limited evidence of a carcinogenic effect
R42/43 : May cause sensitisation by inhalation and skin contact