

PREFLEX EP GUN GRADE (HARDENER)

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Product Identifier

Preflex Ep Gun Grade (Hardener)

1.2 Relevant uses of the substance or mixture and uses advised against

Component of multi-component joint fillers and sealants.

1.3 Details of the supplier of the data sheet

FIS Construction Products
44 Macadam Way
West Portway
Andover
SP10 3XW

sales@premcrete.com

www.premcrete.com

Emergency telephone number
+44 (0) 800 6191619
7.00am-5:00pm Mon-Fri

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Skin Irritation, category 2	H315
Skin Sensitizer, category 1	H317
Eye Irritation, category 2	H319
Acute Toxicity, Inhalation, category 4	H332
Respiratory Sensitizer, category 1	H334
STOT, single exposure, category 3, RTI	H335
Carcinogenicity, category 2	H351
STOT, repeated exposure, category 2	H373

2.2 Label elements

Symbol(s) of Product



Signal Word
Danger

Named Chemicals on Label

4,4'-methylenediphenyl diisocyanate, 2,2'-methylenediphenyl diisocyanate, tosyl isocyanate, diphenylmethane-2,4'- diisocyanate, isocyanic acid, polymethylenepolyphenylene ester

HAZARD STATEMENTS

Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Carcinogenicity, category 2	H351	Suspected of causing cancer
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

PRECAUTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

2.3 Other hazards No Information

Results of PBT and vPvB assessment:
 The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. COMPOSITION INFORMATION ON INGREDIENTS

3.1 Mixtures

Hazardous Ingredients

<u>CAS-No.</u>	<u>EINEC No.</u>	<u>Name According to EEC</u>	<u>%</u>
9016-87-9	618-498-9	isocyanic acid, polymethylenepolyphenylene ester	50-75
101-68-8	202-966-0	4,4'-methylenediphenyl diisocyanate	10-25
5873-54-1	227-534-9	diphenylmethane-2,4'-diisocyanate	2.5-10
2536-05-2	219-799-4	2,2'-methylenediphenyl diisocyanate	0.1-1.0
4083-64-1	223-810-8	tosyl isocyanate	0.1-1.0
98-59-9		tosyl chloride	<0.1

<u>CAS-No.</u>	<u>REACH Reg No.</u>	<u>CLP Symbols</u>	<u>CLP Hazard Statements</u>	<u>M-Factors</u>
9016-87-9		GHS07-GHS08	H315-317-319-332-334-335-351-373	
101-68-8	01-2119457014-47	GHS07-GHS08	H315-317-319-332-334-335-351-373	
5873-54-1		GHS07-GHS08	H315-319-334-335	
2536-05-2		GHS07-GHS08	H315-319-334-335	
4083-64-1		GHS07-GHS08	H315-319-334-335	
98-59-9				

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

4. FIRST AID MEASURES

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice. Remove contaminated clothing and shoes.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

AFTER EYE CONTACT: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses.

AFTER INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention



Self-protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.1 Most important symptoms and effects, both acute and delayed

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

4.2 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Alcohol Foam, Carbon Dioxide, Dry Chemical, Water Fog FOR SAFETY REASONS NOT TO BE USED:
Alcohol, Alcohol based solutions, any other media not listed above

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Contains isocyanates. See information supplied by the manufacturer.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not contaminate surface water. Should not be released into the environment. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4 Reference to other sections





FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use only in area provided with appropriate exhaust ventilation. Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Do not breathe vapours or spray mist. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Keep working clothes separately. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday. Keep away from tobacco products. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage including and incompatibilities

CONDITIONS TO AVOID: Burning produces obnoxious and toxic fumes.

STORAGE CONDITIONS: Store in original container. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

No specific advice for end use available.

8. EXPOSURE CONTROL AND PROTECTION MEASURES

8.1 Control parameters

Ingredients with Occupational Exposure Limits



(UK WELS)

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
isocyanic acid, polymethylenepolyphenylene ester	9016-87-9			0.07	0.02
4,4'-methylenediphenyl diisocyanate	101-68-8			0.07	0.02
diphenylmethane-2,4'-diisocyanate	5873-54-1			0.07	0.02
2,2'-methylenediphenyl diisocyanate	2536-05-2				
tosyl isocyanate	4083-64-1				
tosyl chloride	98-59-9			5	

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	
4,4'-methylenediphenyl diisocyanate	101-68-8	
diphenylmethane-2,4'-diisocyanate	5873-54-1	
2,2'-methylenediphenyl diisocyanate	2536-05-2	
tosyl isocyanate	4083-64-1	
tosyl chloride	98-59-9	

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Respirator with combination filter for vapour/particulate (EN 141). Use only with ventilation to keep levels below exposure guidelines reported in this document. User should test and monitor exposure levels to ensure all personnel are below guidelines.

EYE PROTECTION: Ensure that eyewash stations and safety showers are close to the workstation location.

HAND PROTECTION: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:

isocyanic acid, polymethylenepolyphenylene ester

EC No.:
618-498-9

CAS-No.:
9016-87-9

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required					20 mg/kg bw/day		
Inhalation								
Dermal		50 mg/kg bw/day				50 mg/kg bw/day		

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	
Fresh water sediments	
Marine water	
Marine sediments	
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	1 mg/kg
Air	

Chemical Name:

4,4'-methylenediphenyl diisocyanate

EC No.:

202-966-0

CAS-No.:

101-68-8

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required					20 mg/kg body weight/day		
Inhalation	0.1 mg/m ³ air	0.1 mg/m ³ air	0.05 mg/m ³ air	0.05 mg/m ³ air	0.05 mg/m ³ air	0.05 mg/m ³ air	0.025 mg/m ³ air	0.025 mg/m ³ air
Dermal	28.7 mg/kg	50 mg/kg body weight/day			17.2 mg/kg	25 mg/kg body weight/day		

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	>1 mg/l
Fresh water sediments	
Marine water	>0.1 mg/l
Marine sediments	
Food chain	
Microorganisms in sewage treatment	>1 mg/l
soil (agricultural)	>1 mg/kg dry weight
Air	

Chemical Name:

diphenylmethane-2,4'-diisocyanate

EC No.:

227-534-9

CAS-No.:

5873-54-1

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required					20 mg/kg body weight/day		
Inhalation	0.1 mg/m ³ air	0.1 mg/m ³ air	0.05 mg/m ³ air	0.05 mg/m ³ air	0.05 mg/m ³ air	0.05 mg/m ³ air	0.025 mg/m ³ air	0.025 mg/m ³ air
Dermal	28.7 mg/kg	50 mg/kg body weight/day			17.2 mg/kg	25 mg/kg body weight/day		

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	> 1 mg/l
Fresh water sediments	
Marine water	>0.1 mg/l
Marine sediments	
Food chain	
Microorganisms in sewage treatment	>1 mg/l
soil (agricultural)	>1 mg/kg dry weight
Air	

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Brown Paste
Physical State	Paste
Odor	Musty
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	100 - N.D.
Flash Point, (°C)	200
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	10 - 20
Vapour Pressure	<0.00001 mbar
Vapour density	Not determined
Relative density	Not determined
Solubility in / Miscibility with water	Immiscible in water (reacts)
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	>400°C
Decomposition temperature (°C)	Not determined
Viscosity	Not determined
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l:	0
Specific Gravity (g/cm ³)	1.300

10. STABILITY AND REACTIVITY

- 10.1** Reactivity:
No reactivity hazards known under normal storage and use conditions.
- 10.2** Chemical stability:
Stable under normal conditions.
- 10.3** Possibility of hazardous reactions
Polymerises at about 200°C with evolution of CO₂.
- 10.4** Conditions to avoid
Burning produces obnoxious and toxic fumes.

- 10.5** Incompatible materials Water, alcohol and amines. Amines and alcohols cause exothermic reactions.
- 10.6** Hazardous decomposition products Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. TOXOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No Information
 Inhalation LC50: No Information

Irritation: No information available.
 Corrosivity: No information available.
 Sensitization: No information available.
 Repeated dose toxicity: No information available.
 Carcinogenicity: No information available.
 Mutagenicity: No information available.
 Toxicity for reproduction: No information available.
 STOT-single exposure: No information available.
 STOT-repeated exposure: No information available.
 Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
9016-87-9	isocyanic acid, polymethylenepolyphenylene ester	>5000 mg/kg	>9400 mg/kg	
101-68-8	4,4'-methylenediphenyl diisocyanate	>5000mg/kg	>9400 mg/kg	
5873-54-1	diphenylmethane-2,4'-diisocyanate	>2000 mg/kg	>9400 mg/kg	
2536-05-2	2,2'-methylenediphenyl diisocyanate		> 9400 mg/kg	
4083-64-1	tosyl isocyanate	2600 mg/kg oral, rat		

Additional Information:

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Isocyanates may cause acute irritation and/or sensitisation of the respiratory system leading to tightness of the chest, wheeziness and an asthmatic condition.

12. ECOLOGICAL INFORMATION

12.1	Toxicity:	
	EC50 48hr (Daphnia):	No information
	IC50 72hr (Algae):	No information
	LC50 96hr (fish):	No information
12.2	Persistence and degradability:	No information
12.3	Bioaccumulative potential:	No information
12.4	Mobility in soil:	No information
12.5	Results of PBT and vPvB assessment:	The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.
12.6	Other adverse effects:	No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
9016-87-9	isocyanic acid, polymethylenepolyphenylene ester	No information	1640 mg/l	>1000 mg/l
101-68-8	4,4'-methylenediphenyl diisocyanate	>1000 mg/l	No information	>1000 mg/l
5873-54-1	diphenylmethane-2,4'-diisocyanate	>1000 mg/l	>1640 mg/l	>1000 mg/l
2536-05-2	2,2'-methylenediphenyl diisocyanate	>1000 mg/l	>1640 mg/l	>1000 mg/l
4083-64-1	tosyl isocyanate	No information	No information	
98-59-9	tosyl chloride	No information	No information	No information

13. DISPOSAL CONSIDERATIONS

13.1	WASTE TREATMENT METHODS:	No Information
	European Waste Code:	No Information
	Packaging Waste Code:	150110

14. TRANSPORT INFORMATION



14.1	UN number	Not applicable
14.2	UN proper shipping name	Not regulated for transport according to ADR/RID, IMDG, and IATA regulations.
14.3	Technical name	Not applicable
14.4	Transport hazard class(es) Subsidiary shipping hazard	Not applicable Not applicable
14.5	Packing group	Not applicable
14.6	Environmental hazards	Not applicable
14.7	Special precautions for user EmS-No:	Not applicable Not applicable
14.8	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

National Regulations:

Denmark Product Registration Number:	Not available
Danish MAL Code:	Not available
Danish MAL Code - Mixture:	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available
WGK Class:	Not available

Covered by Directive 2012/18/EC (Seveso III): Not applicable

Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006: Not applicable

15.2 Chemical Safety Assessment:
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.



16. OTHER INFORMATION

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.