



# Material Safety Data Sheet

Version: 1.0

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Mixture  
**Tri-Flex PU**  
Trade name Polyurethane sealant

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Glue

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

#### Trichem company

For construction chemicals  
Factory : 6 October city – Developers area-  
Aloula industrial park - Plot no.14  
www.trichem-eg.com  
Telefax : 02-38588109

For technical support please  
call: 011 184 878 80

### 1.4. Mobile : 011-195 48 267 Emergency telephone number

Country	Organization/Company	Address	Emergency number
UNITED KINGDOM	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0870 600 6266 (UK only)
UNITED KINGDOM	Swallow field PLC	TA21 8NL Wellington	+44 (0) 1823 652 333 (24h)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture Classification

according to Regulation (EC) No. 1272/2008 [CLP]

Resp. Sens. 1 H334

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

R42

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) :

Danger

Hazardous ingredients : 4,4'-methylenediphenyl diisocyanate , Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, Aromatic polyisocyanateprepolymer, Diphenylmethandiisocyanate, isomers and homologues, Oligomeric MDI : Formaldehyde, oligomeric reaction products with aniline and phosgene

Hazard statements (CLP) : H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements (CLP) : P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

### 2.3. Other hazards

Other hazards not contributing to the classification : None, to our knowledge.

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# Safety Data Sheet

according to Regulation (EC) No. 453/2010

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
4,4'-methylenediphenyl diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9 (REACH-no) 01-2119457014-47	0,1 - 1	Carc.Cat.3; R40 Xn; R20 Xn; R48/20 Xi; R36/37/38 R42 R43
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	(CAS No) 41556-26-7 (EC no) 255-437-1	0,1 - 1	R43 N; R50/53
Aromatic polyisocyanateprepolymer	(CAS No) 67815-87-6	0,1 - 1	R42 R43 R52/53
Diphenylmethandiisocyanate, isomers and homologues	(CAS No) 9016-87-9	0,1 - 1	Carc.Cat.3; R40 Xn; R20 R42 R43 Xn; R48/20 Xi; R36/37/38
Oligomeric MDI : Formaldehyde, oligomeric reaction products with aniline and phosgene	(CAS No) 32055-14-4 (EC no) 500-079-6	0,1 - 1	Carc.Cat.3; R40 R42 R43 Xn; R48/20 Xi; R36/37/38

Name	Product identifier	Specific concentration limits
4,4'-methylenediphenyl diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9 (REACH-no) 01-2119457014-47	(0,1 =< C) R42 (5 =< C) Xi;R36/37/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-methylenediphenyl diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9 (REACH-no) 01-2119457014-47	0,1 - 1	Carc. 2, H351 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	(CAS No) 41556-26-7 (EC no) 255-437-1	0,1 - 1	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Aromatic polyisocyanateprepolymer	(CAS No) 67815-87-6	0,1 - 1	Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Diphenylmethandiisocyanate, isomers and homologues	(CAS No) 9016-87-9	0,1 - 1	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
Oligomeric MDI : Formaldehyde, oligomeric reaction products with aniline and phosgene	(CAS No) 32055-14-4 (EC no) 500-079-6	0,1 - 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

Name	Product identifier	Specific concentration limits
4,4'-methylenediphenyl diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9 (REACH-no) 01-2119457014-47	(0,1 =< C) Resp. Sens. 1, H334 (5 =< C) Eye Irrit. 2, H319 (5 =< C) Skin Irrit. 2, H315 (5 =< C) STOT SE 3, H335

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Full text of R- and H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. Keep warm and in a quiet place. Provide oxygen and/or ventilation assistance, if needed. Obtain medical attention if breathing difficulty persists.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If case of redness or irritation, call a doctor.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult an eye specialist.
- First-aid measures after ingestion : Do not induce vomiting. Rinse mouth out with water. Ask for medical advice.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause irritation or asthma-like symptoms.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Powder.
- Unsuitable extinguishing media : Strong water jet.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not classified as flammable according to EC criteria, but may present a risk in the event of a fire.
- Hazardous decomposition products in case of fire : Thermal decomposition generates : Carbon oxides (CO, CO<sub>2</sub>), Isocyanates, Toxic fumes may be released, Nitrogen oxides.

### 5.3. Advice for firefighters

- Firefighting instructions : Cool down the containers exposed to heat with a water spray. Contain the extinguishing fluids by bunding.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ensure adequate ventilation.

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with skin and eyes. Do not breathe vapours.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Contain the spilled material by bunding. Do not discharge into drains or rivers.

### 6.3. Methods and material for containment and cleaning up

- For containment : Recover the product by scraping with a spatula or with a similar instrument.
- Methods for cleaning up : Wash away residue with large amounts of water.
- Other information : Dispose of contaminated materials in accordance with current regulations.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Ensure that there is a suitable ventilation system. Do not handle in a confined space. Smoking is forbidden. Access forbidden to unauthorised personnel.
- Hygiene measures : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, cool, well-ventilated area. Keep container tightly closed.
- Incompatible materials : Acids. Bases. Strong oxidizing agents.
- Storage temperature : ≤ 30 °C
- Packaging materials : Original packaging.

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## 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Chemical resistant gloves (according to European standard NF EN 374 or equivalent).
Eye protection	: Safety glasses with side shields.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Put on breathing apparatus.
Environmental exposure controls	: Take all necessary precautions to avoid the accidental release of the product outside, due to the rupture of containers or transfer systems.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Pasty.
Colour	: White. Grey. Medium gray. Tile. Black.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 61 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1,3 - 1,5 g/cm <sup>3</sup>
Solubility	: Very slightly soluble in: Water. Soluble in : Acetone, Dimethylfumarate (DMF), Tetrahydrofuran (THF).
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content : < 80 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

To our knowledge, the product does not present any particular risk.

### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Can react with : Water. Alcohols.Amines.

### 10.4. Conditions to avoid

Overheating.

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## 10.5. Incompatible materials

Strong oxidizing agents.Acids.Bases.

## 10.6. Hazardous decomposition products

On combustion or on thermal decomposition (pyrolysis) releases : Carbon oxides (CO, CO<sub>2</sub>), Isocyanates, Toxic fumes may be released.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : To our knowledge, the product does not present any particular risk.

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Discharging into rivers and drains is forbidden. Dispose of in accordance with relevant local regulations.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

No dangerous good in sense of transport regulations

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available.

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## 14.6. Special precautions for user

### 14.6.1. Overland transport

No additional information available

### 14.6.2. Transport by sea

No additional information available

### 14.6.3. Air transport

No additional information available

### 14.6.4. Inland waterway transport

No additional information available

## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

VOC content : < 80 g/l

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

This sheet was updated (refer to the date at the top of this page). This sheet has been revised completely (changes were not marked).

Data sources : SDS of suppliers. ECHA - European Chemical Agency.

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
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
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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H412	Harmful to aquatic life with long lasting effects
R20	Harmful by inhalation
R36/37/38	Irritating to eyes, respiratory system and skin
R40	Limited evidence of a carcinogenic effect
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*