

Safety Data Sheet according to Regulation (EC) No 1907/2006

Page 1 of 13

SDS No.: 189396 V005.0

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TECHNOMELT PUR 270/7 16KG

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

1.1. Product identifier

TECHNOMELT PUR 270/7 16KG

Contains:

Diphenylmethane diisocyanate, isomers and homologues

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

Intended use:

Assembly and laminating adhesive for general, woodworking and footware industry

1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0 Fax-no.: +49 211 798 2009

ua-productsafety.de@henkel.com

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Respiratory sensitizer Category 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitizer Category 1

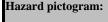
H317 May cause an allergic skin reaction.

Carcinogenicity Category 2

H351 Suspected of causing cancer.

2.2. Label elements

Label elements (CLP):





| Signal word: | Danger |
|--|---|
| Hazard statement: | H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer. |
| Precautionary statement: Prevention | P201 Obtain special instructions before use. P261 Avoid breathing vapours. P280 Wear protective gloves/protective clothing/eye protection/face protection. |
| Precautionary statement: | P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor. |

2.3. Other hazards

Persons suffering from allergic reactions to isocyanates should avoid contact with the product. Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

1-Component PU adhesive

Base substances of preparation:

Polyurethane prepolymer with isocyanate groups

Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|---|----------------------------|-----------|--------------------------|
| 4,4'- methylenediphenyl diisocyanate | 202-966-0 | 1-< 3 % | Carc. 2 |
| 101-68-8 | 01-2119457014-47 | | 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 |
| o-(p-Isocyanatobenzyl)phenyl isocyanate | 227-534-9 | 0,1-< 1 % | Carc. 2 |
| 5873-54-1 | 01-2119480143-45 | | H351 |
| | | | Acute Tox. 4; Inhalation |
| | | | H332 |
| | | | STOT RE 2 |
| | | | H373 |
| | | | Eye Irrit. 2 |
| | | | H319 |
| | | | STOT SE 3 |
| | | | H335 |
| | | | Skin Irrit. 2 |
| | | | H315 |
| | | | Skin Sens. 1 |
| | | | H317 |
| | | | Resp. Sens. 1 |
| | | | H334 |

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

Inhalation:

Fresh air, oxygen supply, warmth; seek specialist medical attention.

Delayed effects possible after inhalation.

Skin contact:

Molten product. After skin contact cool down immediately with cold water. Do not remove adherent product. Seek medical advice.

Eye contact:

After contact with the hot melt: cool with water, seek medical attention.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Rash, Urticaria.

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

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Avoid contact with skin and eyes.

Keep unprotected persons away.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Allow to solidify.

Remove mechanically.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container protected against moisture.

Ensure good ventilation/extraction.

Storage at 5 to 25°C is recommended.

7.3. Specific end use(s)

Assembly and laminating adhesive for general, woodworking and footware industry

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Germany

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|--|-----|-------------------|---|--|-----------------|
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 | | | Skin designation: | Can be absorbed through the skin. | TRGS 900 |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 | | | STEL (Short Term Exposure Limit) factor: | I Substance listed with both Peak factor and STEL factor. The Peak factor is supplied with the AGW values. | TRGS 900 |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 | | | Short Term Exposure Classification: | Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. | TRGS 900 |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 | | 0,05 | Exposure limit(s): | =2= If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | | 0,05 | Exposure limit(s): | =2= | TRGS 900 |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | | | STEL (Short Term Exposure Limit) factor: | 1 Substance listed with both Peak factor and STEL factor. The Peak factor is supplied with the AGW values. | TRGS 900 |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | | | Short Term Exposure Classification: | Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. | TRGS 900 |

TECHNOMELT PUR 270/7 16KG

MSDS-No.: 189396 V005.0

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|--|------------------------------------|-----------------|------------|-----|-----------|--------|---------|
| | | | mg/l | ppm | mg/kg | others | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | aqua (freshwater) | | 1 mg/l | | | | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | aqua (marine water) | | 0,1 mg/l | | | | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | soil | | | | 1 mg/kg | | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | sewage treatment plant (STP) | | 1 mg/l | | | | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | aqua (marine water) | | > 0,1 mg/l | | | | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | sewage treatment plant (STP) | | > 1 mg/l | | | | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | aqua (intermittent releases) | | 10 mg/l | | | | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | aqua (freshwater) | | > 1 mg/l | | | | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | soil | | | | > 1 mg/kg | | |

Derived No-Effect Level (DNEL):

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|--|-----------------------|----------------------|--|------------------|-------------|---------|
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | Workers | inhalation | Long term exposure - local effects | | 0,05 mg/m3 | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | Workers | inhalation | Acute/short term exposure - local effects | | 0,1 mg/m3 | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | General population | inhalation | Long term exposure - local effects | | 0,025 mg/m3 | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | General population | inhalation | Acute/short term exposure - local effects | | 0,05 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | dermal | Acute/short term exposure - systemic effects | | 50 mg/kg | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | inhalation | Acute/short term exposure - systemic effects | | 0,1 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | dermal | Acute/short term exposure - local effects | | 28,7 mg/cm2 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | inhalation | Acute/short term exposure - local effects | | 0,1 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | inhalation | Long term exposure - systemic effects | | 0,05 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | inhalation | Long term exposure - local effects | | 0,05 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | dermal | Acute/short term exposure - systemic effects | | 25 mg/kg | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | inhalation | Acute/short term exposure - systemic effects | | 0,05 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | oral | Acute/short term exposure - systemic effects | | 20 mg/kg | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | dermal | Acute/short term exposure - local effects | | 17,2 mg/cm2 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | inhalation | Acute/short term exposure - local effects | | 0,05 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | inhalation | Long term exposure - systemic effects | | 0,025 mg/m3 | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | inhalation | Long term exposure - local effects | | 0,025 mg/m3 | |

Biological Exposure Indices:

| Ingredient [Regulated | Parameters | Biological | Sampling time | Conc. | Basis of biol. | Remark | Additional |
|------------------------|-------------|---------------|-----------------------|---------|----------------|--------------------|-------------|
| substance] | | specimen | | | exposure index | | Information |
| 4,4'-Methylenediphenyl | 4,4- | Creatinine in | Sampling time: End of | 10 μg/g | DE BAT | BAT values | |
| diisocyanate | Diaminodiph | urine | shift. | | | reflect the | |
| 101-68-8 | enylmethane | | | | | total | |
| | - | | | | | physical load | |
| | | | | | | of workplace | |
| | | | | | | substances | |
| | | | | | | absorbed | |
| | | | | | | through | |
| | | | | | | inhalation, | |
| | | | | | | dermally, | |
| | | | | | | etc. With | |
| | | | | | | occupational | |
| | | | | | | exposure to | |
| | | | | | | MDI, | |
| | | | | | | parameter 4,4'- | |
| | | | | | | Diaminodiph | |
| | | | | | | enylmethane | |
| | | | | | | (MDA) in | |
| | | | | | | the urine | |
| | | | | | | covers all | |
| | | | | | | components | |
| | | | | | | of a complex | |
| | | | | | | MDI | |
| | | | | | | mixture, | |
| | | | | | | since both | |
| | | | | | | monomers | |
| | | | | | | and | |
| | | | | | | oligomers of | |
| | | | | | | the MDI are | |
| | | | | | | degraded | |
| | | | | | | independent of the | |
| | | | | | | exposure | |
| | | | | | | path of the | |
| | | | | | | monomerous | |
| | | | | | | MDI. In | |
| | | | | | | contrast, the | |
| | | | | | | MAK value | |
| | | | | | | for MDI | |
| | | | | | | takes into | |
| | | | | | | account only | |
| | | | | | | the monomer | |
| | | | | | | MDI portion. | |

8.2. Exposure controls:

Engineering controls:

Use only in well ventilated areas.

Draw off vapors and fumes directly at the point of generation or release. In the case of regular work use bench-mounted extraction equipment.

Respiratory protection:

In case of dust formation, we recommend wearing of appropriate respiratory protection equipment with particle filter P (EN 14387).

This recommendation should be matched to local conditions.

Hand protection:

Wear refractive gloves while working with the hot melt.

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Wear protective equipment.

Protective clothing that covers arms and legs.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance granulate

solid Ivory

Odor characteristic

Odour threshold No data available / Not applicable

pH Not applicable

Initial boiling point

No data available / Not applicable
Flash point

228 °C (442.4 °F); no method
Decomposition temperature

No data available / Not applicable
Vapour pressure

No data available / Not applicable

Density 1,25 - 1,35 g/cm³

 $(20~^{\circ}\text{C}~(68~^{\circ}\text{F}))$

Bulk density No data available / Not applicable

Viscosity 30.000 - 45.000 mPa.s

(Brookfield; Instrument: RVT; 150 °C (302 °F); speed of rotation: 10 min-1; Spindle No:

28)

Viscosity (kinematic)

Explosive properties

No data available / Not applicable

No data available / Not applicable

Solubility (qualitative) Insoluble (20 °C (68 °F); Solvent: Water)

Solidification temperature

Mo data available / Not applicable
Melting point

No data available / Not applicable
Flammability

No data available / Not applicable
Auto-ignition temperature

No data available / Not applicable

Explosive limits
Partition coefficient: n-octanol/water
Evaporation rate
Vapor density
No data available / Not applicable

9.2. Other information

Softening point/range 82 °C (179.6 °F) Ignition temperature 82 °C (179.6 °F)> 500 °C (> 932 °F)

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with water, alcohols, amines.

Reacts with water: Pressure built up in closed vessel (CO2).

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Humidity

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

At higher temperatures isocyanate may be released.

Carbon dioxide is generated under contact with moisture, leading to pressure in the cans. Danger of cans bursting!

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

Sensitizing:

May cause an allergic skin reaction.

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

Carcinogenicity:

Suspected of causing cancer

Acute oral toxicity:

| Hazardous components | Value | Value | Route of | Exposure | Species | Method |
|---|-------|---------------|-------------|----------|---------|--|
| CAS-No. | type | | application | time | | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | LD50 | > 2.000 mg/kg | oral | | rat | other guideline: |
| o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | LD50 | > 2.000 mg/kg | oral | | rat | EU Method B.1 (Acute Toxicity (Oral)) |

Acute dermal toxicity:

| Hazardous components | Value | Value | Route of | Exposure | Species | Method |
|-------------------------|-------|---------------|-------------|----------|---------|---------------------------|
| CAS-No. | type | | application | time | | |
| 4,4'- methylenediphenyl | LD50 | > 9.400 mg/kg | dermal | | rabbit | OECD Guideline 402 (Acute |
| diisocyanate | | | | | | Dermal Toxicity) |
| 101-68-8 | | | | | | • |
| o-(p- | LD50 | > 9.400 mg/kg | dermal | | rabbit | OECD Guideline 402 (Acute |
| Isocyanatobenzyl)phenyl | | | | | | Dermal Toxicity) |
| isocyanate | | | | | | • |
| 5873-54-1 | | | | | | |

Skin corrosion/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|---------------------------------|------------|---------------|---------|--------------------------------|
| 4,4'- methylenediphenyl | irritating | 4 h | rabbit | OECD Guideline 404 (Acute |
| diisocyanate | | | | Dermal Irritation / Corrosion) |
| 101-68-8 | | | | |

Respiratory or skin sensitization:

| Hazardous components | Result | Test type | Species | Method |
|-------------------------|-------------|-----------|------------|--------------------------|
| CAS-No. | | | | |
| 4,4'- methylenediphenyl | sensitising | Buehler | guinea pig | OECD Guideline 406 (Skin |
| diisocyanate | _ | test | | Sensitisation) |
| 101-68-8 | | | | |

Germ cell mutagenicity:

| Hazardous components | Result | Type of study / | Metabolic | Species | Method |
|-------------------------|----------|-------------------------|----------------------------|---------|------------------------|
| CAS-No. | | Route of administration | activation / Exposure time | | |
| 4,4'- methylenediphenyl | negative | bacterial reverse | with and without | | EU Method B.13/14 |
| diisocyanate | | mutation assay (e.g | | | (Mutagenicity) |
| 101-68-8 | | Ames test) | | | |
| 4,4'- methylenediphenyl | negative | inhalation | | rat | OECD Guideline 474 |
| diisocyanate | | | | | (Mammalian Erythrocyte |
| 101-68-8 | | | | | Micronucleus Test) |

Carcinogenicity:

| Hazardous components | Result | Species | Sex | Exposure | Route of | Method |
|-------------------------|--------------|---------|-------------|----------------|-------------|----------------------------|
| CAS-No. | | | | timeFrequenc | application | |
| | | | | y of treatment | | |
| 4,4'- methylenediphenyl | carcinogenic | rat | male/female | 2 y | inhalation: | OECD Guideline 453 |
| diisocyanate | | | | 6 h/d | aerosol | (Combined Chronic |
| 101-68-8 | | | | | | Toxicity / Carcinogenicity |
| | | | | | | Studies) |

Repeated dose toxicity

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Method |
|---|--------|------------------------|--|---------|--|
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | | inhalation: aerosol | main: 2 y; satellite:1 y6 h/d; 5 d/w | rat | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |
| o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | | inhalation: aerosol | main: 2 y; satellite: 1 y6 h/d; 5 d/w | rat | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |

SECTION 12: Ecological information

General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. Do not empty into drains, soil or bodies of water.

12.1. Toxicity

| Hazardous components CAS-No. | Value type | Value | Acute Toxicity | Exposure time | Species | Method |
|---------------------------------|---------------|--------------|-------------------|---------------|------------------------------|---------------------|
| | | | Study | | | |
| 4,4'- methylenediphenyl | LC50 | > 1.000 mg/l | Fish | 96 h | Danio rerio | OECD Guideline |
| diisocyanate | | | | | | 203 (Fish, Acute |
| 101-68-8 | | 1 | ļ | | | Toxicity Test) |
| 4,4'- methylenediphenyl | EC50 | 129,7 mg/l | Daphnia | 24 h | Daphnia magna | OECD Guideline |
| diisocyanate | | | | | | 202 (Daphnia sp. |
| 101-68-8 | | | | | | Acute |
| | | | | | | Immobilisation |
| | | |] | | | Test) |
| 4,4'- methylenediphenyl | EC50 | > 1.640 mg/l | Algae | 72 h | Scenedesmus subspicatus (new | OECD Guideline |
| diisocyanate | | | | | name: Desmodesmus | 201 (Alga, Growth |
| 101-68-8 | | | | | subspicatus) | Inhibition Test) |
| 4,4'- methylenediphenyl | EC 50 | > 100 mg/l | Bacteria | 3 h | | OECD Guideline |
| diisocyanate | | | | | | 209 (Activated |
| 101-68-8 | | | | | | Sludge, Respiration |
| | | | | | | Inhibition Test) |
| 4,4'- methylenediphenyl | NOEC | > 10 mg/l | chronic | 21 d | Daphnia magna | OECD 211 |
| diisocyanate | | | Daphnia | | | (Daphnia magna, |
| 101-68-8 | | | | | | Reproduction Test) |
| o-(p-Isocyanatobenzyl)phenyl | LC50 | > 1.000 mg/l | Fish | 96 h | Danio rerio | OECD Guideline |
| isocyanate | | | | | | 203 (Fish, Acute |
| 5873-54-1 | | | | | | Toxicity Test) |

12.2. Persistence and degradability

| Hazardous components CAS-No. | Result | | Route of application | Degradability | Method |
|------------------------------|----------------|------|----------------------|---------------|------------------------------|
| 4,4'- methylenediphenyl | Not rea | dily | aerobic | 0 % | OECD Guideline 301 F (Ready |
| diisocyanate | biodegradable. | - | | | Biodegradability: Manometric |
| 101-68-8 | = | | | | Respirometry Test) |

12.3. Bioaccumulative potential / 12.4. Mobility in soil

| Hazardous components | LogPow | Bioconcentration | Exposure | Species | Temperature | Method |
|------------------------------|--------|------------------|----------|-----------------|-------------|-------------------------|
| CAS-No. | | factor (BCF) | time | | | |
| 4,4'- methylenediphenyl | | 92 - 200 | 28 d | Cyprinus carpio | | OECD Guideline 305 E |
| diisocyanate | | | | | | (Bioaccumulation: Flow- |
| 101-68-8 | | | | | | through Fish Test) |
| 4,4'- methylenediphenyl | 5,22 | | | | | not specified |
| diisocyanate | | | | | | |
| 101-68-8 | | | | | | |
| o-(p-Isocyanatobenzyl)phenyl | 5,22 | | | | | not specified |
| isocyanate | | | | | | |
| 5873-54-1 | | | | | | |

12.5. Results of PBT and vPvB assessment

| Hazardous components | PBT/vPvB |
|---|--|
| CAS-No. | |
| 4,4'- methylenediphenyl diisocyanate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 101-68-8 | Bioaccumulative (vPvB) criteria. |
| o-(p-Isocyanatobenzyl)phenyl isocyanate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 5873-54-1 | Bioaccumulative (vPvB) criteria. |

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

08 04 09 Waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

VOC content 0 %

(VOCV 814.018 VOC regulation

CH)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: 1, slightly water-endangering product. (German VwVwS of July 27, 2005)

Classification in conformity with the calculation method

BG regulations, rules, infos:

BG data sheet: BGI 524 Hazardous substances: polyurethane production

and processing / isocyanates (M 044)

Storage class according to TRGS 510: 11

General remarks (DE): This product is in scope of the German regulation

"ChemikalienVerbotsVerordnung"

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

- 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.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.