



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

Page 1 of 16

TECHNOMELT PUR 270/7 16KG

SDS No. : 189396
V010.0

Revision: 21.04.2022

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Replaces version from: 19.04.2022

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

1.1. Product identifier

TECHNOMELT PUR 270/7 16KG

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

Intended use:

Polyurethane Hot Melt

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

ua-productsafety.uk@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

| | |
|---|------------|
| Respiratory sensitization | 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):

Hazard pictogram:**Contains**

Diphenylmethane diisocyanate, isomers and homologues

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.

Supplemental information

As from 24 August 2023 adequate training is required before industrial or professional use.

Further information: <https://www.feica.eu/PUinfo>**Precautionary statement:
Prevention**

P261 Avoid breathing fume.
 P280 Wear protective gloves.

**Precautionary statement:
Response**

P308+P313 IF exposed or concerned: Get medical advice/attention.
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or 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.

Following substances are present in a concentration $\geq 0,1\%$ and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):This mixture does not contain any substances in concentration \geq the concentration limit that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

| Hazardous components CAS-No. EC Number REACH-Reg No. | Concentration | Classification | Specific Conc. Limits, M-factors and ATEs | Add. Information |
|---|---------------|---|---|------------------|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 202-966-0 01-2119457014-47 | 1- < 3 % | 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 | Eye Irrit. 2; H319; C >= 5 % Skin Irrit. 2; H315; C >= 5 % Resp. Sens. 1; H334; C >= 0,1 % STOT SE 3; H335; C >= 5 % | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 227-534-9 01-2119480143-45 | 0,1- < 1 % | STOT RE 2, H373 Carc. 2, H351 Acute Tox. 4, Inhalation, H332 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317 Resp. Sens. 1, H334 | Eye Irrit. 2; H319; C >= 5 % Skin Irrit. 2; H315; C >= 5 % Resp. Sens. 1; H334; C >= 0,1 % STOT SE 3; H335; C >= 5 % | |

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)

Polyurethane Hot Melt

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|--|-----|-------------------|-----------------------------------|--|-----------------|
| Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Limestone 1317-65-3 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Limestone 1317-65-3 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)] | | 0,02 | Time Weighted Average (TWA): | | EH40 WEL |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)] | | 0,07 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES, ALL (AS -NCO)] | | 0,02 | Time Weighted Average (TWA): | | EH40 WEL |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES, ALL (AS -NCO)] | | 0,07 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |

Occupational Exposure Limits

Valid for
Ireland

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|--|-------|-------------------|-----------------------------------|--|-----------------|
| Limestone 1317-65-3 [CALCIUM CARBONATE] | | 4 | Time Weighted Average (TWA): | | IR_OEL |
| Limestone 1317-65-3 [CALCIUM CARBONATE] | | 10 | Time Weighted Average (TWA): | | IR_OEL |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 [4,4'-METHYLENE-DIPHENYL DIISOCYANATE (AS -NCO)] | 0,005 | | Time Weighted Average (TWA): | | IR_OEL |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624-83-9) AND TOLUENE (2,4 OR 2,6 DIISOCYANATE (CAS NO. 584-84-9, 91-08-7))] | | 0,02 | Time Weighted Average (TWA): | | IR_OEL |
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624-83-9) AND TOLUENE (2,4 OR 2,6 DIISOCYANATE (CAS NO. 584-84-9, 91-08-7))] | | 0,07 | Short Term Exposure Limit (STEL): | 15 minutes | IR_OEL |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | | 0,07 | Short Term Exposure Limit (STEL): | 15 minutes | IR_OEL |

| | | | | | |
|---|--|------|------------------------------|--|--------|
| [ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624-83-9) AND TOLUENE (2,4 OR 2,6 DIISOCYANATE (CAS NO. 584-84-9, 91-08-7)] | | | | | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624-83-9) AND TOLUENE (2,4 OR 2,6 DIISOCYANATE (CAS NO. 584-84-9, 91-08-7)] | | 0,02 | Time Weighted Average (TWA): | | IR_OEL |

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 | | | | |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | Air | | | | | | no hazard identified |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | Predator | | | | | | no potential for bioaccumulation |
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | aqua (intermittent releases) | | 10 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/m ³ | no hazard identified |
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | Workers | inhalation | Acute/short term exposure - local effects | | 0,1 mg/m ³ | no hazard identified |
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | General population | inhalation | Long term exposure - local effects | | 0,025 mg/m ³ | no hazard identified |
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | General population | inhalation | Acute/short term exposure - local effects | | 0,05 mg/m ³ | no hazard identified |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | inhalation | Acute/short term exposure - local effects | | 0,1 mg/m ³ | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | Workers | inhalation | Long term exposure - local effects | | 0,05 mg/m ³ | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | inhalation | Acute/short term exposure - local effects | | 0,05 mg/m ³ | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | General population | inhalation | Long term exposure - local effects | | 0,025 mg/m ³ | |

Biological Exposure Indices:

| Ingredient [Regulated substance] | Parameters | Biological specimen | Sampling time | Conc. | Basis of biol. exposure index | Remark | Additional Information |
|---|----------------------------|---------------------|--|-------|-------------------------------|--------|------------------------|
| 4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)] | Isocyanate-derived diamine | Creatinine in urine | Sampling time: At the end of the period of exposure. | | UKEH40BMG V | | |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)] | Isocyanate-derived diamine | Creatinine in urine | Sampling time: At the end of the period of exposure. | | UKEH40BMG V | | |

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 heat resistance gloves while working with the hot melt (EN 407).

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), or equivalent.

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

| | |
|---|---|
| Physical state | solid |
| Delivery form | granulate |
| Colour | Ivory |
| Odor | characteristic |
| Initial boiling point | Not applicable, Decomposes before boiling point is reached |
| Flammability | Not applicable |
| | Non flammable product (flash point is greater than 93°C) |
| Flash point | 228 °C (442.4 °F); no method |
| pH | Not applicable, Product is non-soluble (in water). |
| Viscosity (kinematic) | Not applicable, Product is a solid. |
| Viscosity, dynamic | 30.000 - 45.000 mPa.s Dorus-method 501; viscosity |
| (Brookfield; Instrument: RVT; 150 °C (302 °F); speed of rotation: 10 min-1; Spindle No: 28) | Brookfield |
| Solubility (qualitative) | Insoluble |
| (20 °C (68 °F); Solvent: Water) | |
| Density | 1,25 - 1,30 g/cm ³ Dorus-method 545; density (Areometer) |
| (20 °C (68 °F)) | |

9.2. Other information

Other information not applicable for this product

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

General toxicological information:

Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Species | Method |
|---|---------------|---------------|---------|------------------|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | LD50 | > 2.000 mg/kg | rat | other guideline: |
| o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | LD50 | > 2.000 mg/kg | rat | other guideline: |

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

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

Acute inhalative toxicity:

No substance data available.

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|---|------------|------------------|---------|--|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | irritating | 4 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

Serious eye damage/irritation:

No data available.

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Test type | Species | Method |
|--|-----------------|------------------------------------|------------|---|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | sensitising | Buehler test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | sensitising | Respiratory sensitisation | guinea pig | not specified |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | not sensitising | Buehler test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|--|----------|--|--|---------|--|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | EU Method B.13/14 (Mutagenicity) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | negative | inhalation | | rat | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | negative | inhalation | | rat | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Sex | Method |
|--|--------------|-------------------------|---|---------|-------------|--|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | carcinogenic | inhalation: aerosol | 2 y 6 h/d | rat | male/female | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | carcinogenic | inhalation: aerosol | 2 y 6 h/d, 5 d/w | rat | male/female | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|---|-----------------------------|---------------------------------|---|----------------|---|
| 4,4'- methylenediphenyl diisocyanate 101-68-8 | NOAEL 0,0002 mg/l | inhalation: aerosol | main: 2 y; satellite:1 y 6 h/d; 5 d/w | rat | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |
| o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | NOAEL 0,2 mg/m ³ | inhalation: aerosol | 2 y 6 h/d, 5 d/w | rat | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|--------------------------------|---------------|-------------|---|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | LC50 | > 1.000 mg/l | 96 h | Danio rerio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | LC50 | Toxicity > Water Solubility | 96 h | Danio rerio | OECD Guideline 203 (Fish, Acute Toxicity Test) |

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|--------------------------------|---------------|---------------|--|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | EC50 | 129,7 mg/l | 24 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | EC50 | Toxicity > Water Solubility | 24 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|--------------------------------|---------------|---------------|--|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | NOEC | 10 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | NOEC | Toxicity > Water solubility | 21 day | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|--|---------------|-----------------------------|---------------|---|---|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | EC50 | > 1.640 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | NOELR | 1.640 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | EC50 | Toxicity > Water Solubility | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | NOELR | Toxicity > Water Solubility | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|------------|---------------|------------------|--|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | EC50 | > 100 mg/l | 3 h | activated sludge | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |

12.2. Persistence and degradability

| Hazardous substances CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|--|----------------------------|-----------|---------------|---------------|---|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | not readily biodegradable. | aerobic | 0 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | not readily biodegradable. | aerobic | 0 % | 28 day | OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)) |

12.3. Bioaccumulative potential

| Hazardous substances CAS-No. | Bioconcentration factor (BCF) | Exposure time | Temperature | Species | Method |
|--|-------------------------------|---------------|-------------|-----------------|--|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | 92 - 200 | 28 d | | Cyprinus carpio | OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | 200 | 28 day | | Cyprinus carpio | OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test) |

12.4. Mobility in soil

| Hazardous substances CAS-No. | LogPow | Temperature | Method |
|--|--------|-------------|---|
| 4,4'-methylenediphenyl diisocyanate 101-68-8 | 4,51 | 22 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 | 5,22 | | QSAR (Quantitative Structure Activity Relationship) |

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

not applicable

12.7. 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.

080409

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. Maritime transport in bulk according to IMO instruments**
not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

| | |
|---|----------------|
| Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): | Not applicable |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): | Not applicable |
| Persistent organic pollutants (Regulation (EU) 2019/1021): | Not applicable |
| VOC content (2010/75/EU) | 0,0 % |

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

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.

| | |
|-------------|---|
| ED: | Substance identified as having endocrine disrupting properties |
| EU OEL: | Substance with a Union workplace exposure limit |
| EU EXPLD 1: | Substance listed in Annex I, Reg (EC) No. 2019/1148 |
| EU EXPLD 2 | Substance listed in Annex II, Reg (EC) No. 2019/1148 |
| SVHC: | Substance of very high concern (REACH Candidate List) |
| PBT: | Substance fulfilling persistent, bioaccumulative and toxic criteria |
| PBT/vPvB: | Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria |
| vPvB: | Substance fulfilling very persistent and very bioaccumulative criteria |

Further information:

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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.

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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.