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

### 1.1. Product identifier

*Product form* : *Mixture*

*Trade name* : *FOME FLEX PU45 HM*

*Product code* : *Adhesives, Sealants*

*Type of product*

### 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* : *Construction materials and sealing applications.*

#### 1.2.2. Uses advised against

No additional information available

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

No additional information available

### 1.4. Emergency telephone number

No additional information available

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

*Respiratory sensitisation, Category 1* *H334*

Full text of H- and EUH-statements: 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-isocyanatosulphonyltoluene; tosyl isocyanate; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate*

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

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| | |
|---|---|
| *Precautionary statements (CLP)* | *: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.*<br>*P285 - In case of inadequate ventilation wear respiratory protection.*<br>*P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.*<br>*P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.*<br>*P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.* |
| *EUH-statements* | *: EUH204 - Contains isocyanates. May produce an allergic reaction.*<br>*EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.* |
| *Extra phrases* | *: Persons already sensitised to diisocyanates may develop allergic reactions when using this product.*<br>*Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.*<br>*This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.*<br>*As from 24 August 2023 adequate training is required before industrial or professional use.* |

### 2.3. Other hazards

*Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII*

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| *xylene*<br>*substance with a Community workplace exposure limit*<br>*(Note C)* | *(CAS-No.) 1330-20-7*<br>*(EC-No.) 215-535-7*<br>*(EC Index-No.) 601-022-00-9* | *≥ 5 – < 6* | *Flam. Liq. 3, H226*<br>*Acute Tox. 4 (Dermal), H312*<br>*Acute Tox. 4 (Inhalation), H332*<br>*Skin Irrit. 2, H315* |
| *Titanium Dioxide*<br>*(Note 10)* | *(CAS-No.) 13463-67-7*<br>*(EC-No.) 236-675-5*<br>*(EC Index-No.) 022-006-00-2*<br>*(REACH-no) 01-2119489379-17-0005 01-2119489379-17-0006 01-2119489379-17-0018* | *≥ 3 – < 4* | *Carc. 2, H351* |

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| | | | |
|---|---|---|---|
| *ethylbenzene*<br>*substance with a Community workplace exposure limit* | *(CAS-No.) 100-41-4*<br>*(EC-No.) 202-849-4*<br>*(EC Index-No.) 601-023-00-4* | *≥ 1 – < 2* | *Flam. Liq. 2, H225*<br>*Acute Tox. 4 (Inhalation), H332*<br>*STOT RE 2, H373*<br>*Asp. Tox. 1, H304* |
| *4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate*<br>*(Note C)(Note 2)* | *(CAS-No.) 101-68-8*<br>*(EC-No.) 202-966-0*<br>*(EC Index-No.) 615-005-00-9* | *≥ 0.7 – < 1* | *Carc. 2, H351*<br>*Acute Tox. 4 (Inhalation), H332*<br>*STOT RE 2, H373*<br>*Eye Irrit. 2, H319*<br>*STOT SE 3, H335*<br>*Skin Irrit. 2, H315*<br>*Resp. Sens. 1, H334*<br>*Skin Sens. 1, H317* |
| *4-isocyanatosulphonyltoluene; tosyl isocyanate* | *(CAS-No.) 4083-64-1*<br>*(EC-No.) 223-810-8*<br>*(EC Index-No.) 615-012-00-7*<br>*(REACH-no) 01-2119980050-47* | *≥ 0.1 – < 0.4* | *Skin Irrit. 2, H315*<br>*Eye Irrit. 2, H319*<br>*Resp. Sens. 1, H334*<br>*STOT SE 3, H335* |

**Specific concentration limits:**

| Name | Product identifier | Specific concentration limits |
|---|---|---|
| *4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate* | *(CAS-No.) 101-68-8*<br>*(EC-No.) 202-966-0*<br>*(EC Index-No.) 615-005-00-9* | *( 0.1 ≤C ≤ 100) Resp. Sens. 1, H334*<br>*( 5 ≤C ≤ 100) STOT SE 3, H335*<br>*( 5 ≤C ≤ 100) Skin Irrit. 2, H315*<br>*( 5 ≤C ≤ 100) Eye Irrit. 2, H319* |
| *4-isocyanatosulphonyltoluene; tosyl isocyanate* | *(CAS-No.) 4083-64-1*<br>*(EC-No.) 223-810-8*<br>*(EC Index-No.) 615-012-00-7*<br>*(REACH-no) 01-2119980050-47* | *( 5 ≤C ≤ 100) Skin Irrit. 2, H315*<br>*( 5 ≤C ≤ 100) STOT SE 3, H335*<br>*( 5 ≤C ≤ 100) Eye Irrit. 2, H319* |

*Note 10 - The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.*

*Note 2 - The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.*

*Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.*

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

*First-aid measures general* *: Call a poison center or a doctor if you feel unwell.*

*First-aid measures after inhalation* : *Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.*

*First-aid measures after skin contact* : *Wash skin with plenty of water.*

*First-aid measures after eye contact* : *Rinse eyes with water as a precaution.*

*First-aid measures after ingestion* : *Call a poison center or a doctor if you feel unwell.*

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

*Symptoms/effects after inhalation* : *May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

### 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. Dry powder. Foam. Carbon dioxide.*

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

*Hazardous decomposition products in case of fire* : *Toxic fumes may be released.*

### 5.3. Advice for firefighters

*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

#### 6.1.1. For non-emergency personnel

*Emergency procedures* : *Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray.*

#### 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

Avoid release to the environment.

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

*Methods for cleaning up* : *Take up liquid spill into absorbent material.*

*Other information* : *Dispose of materials or solid residues at an authorized site.*

### 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* : *Ensure good ventilation of the work station. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.*

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*Hygiene measures* : *Do not eat, drink or smoke when using this product. Always wash hands after handling the product.*

7.2. Conditions for safe storage, including any incompatibilities

*Storage conditions* : *Store in a well-ventilated place. Keep cool.*

7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| **4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)** | | |
|---|---|---|
| *Germany* | *Notes* | |
| *United Kingdom* | *WEL TWA (OEL TWA) [1]* | *0.02 mg/m³* |
| *United Kingdom* | *WEL STEL (OEL STEL)* | *0.07 mg/m³* |

| **xylene (1330-20-7)** | | |
|---|---|---|
| *EU* | *Local name* | *Xylene, mixed isomers, pure* |
| *EU* | *IOEL TWA* | *221 mg/m³* |
| *EU* | *IOEL STEL* | *442 mg/m³* |
| *EU* | *IOEL STEL [ppm]* | *100 ppm* |
| *EU* | *Remark* | *Skin* |
| *EU* | *Regulatory reference* | *COMMISSION DIRECTIVE 2000/39/EC* |
| *Germany* | *Notes* | |
| *USA - ACGIH* | *Local name* | *Xylene, mixed isomers (Dimethylbenzene)* |
| *USA - ACGIH* | *ACGIH OEL TWA [ppm]* | *100 ppm* |
| *USA - ACGIH* | *ACGIH OEL STEL [ppm]* | *150 ppm* |
| *USA - ACGIH* | *Remark (ACGIH)* | *TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI* |
| *USA - ACGIH* | *Regulatory reference* | *ACGIH 2019* |

| **ethylbenzene (100-41-4)** | | |
|---|---|---|
| *EU* | *Local name* | *Ethylbenzene* |
| *EU* | *IOEL TWA* | *442 mg/m³* |

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| **ethylbenzene (100-41-4)** | | |
|---|---|---|
| *EU* | *IOEL STEL* | *884 mg/m³* |
| *EU* | *IOEL STEL [ppm]* | *200 ppm* |
| *EU* | *Remark* | *Skin* |
| *EU* | *Regulatory reference* | *COMMISSION DIRECTIVE 2000/39/EC* |
| *Belgium* | *OEL TWA* | *87 mg/m³* |
| *Belgium* | *OEL TWA [ppm]* | *20 ppm* |
| *Belgium* | *OEL STEL* | *551 mg/m³* |
| *Belgium* | *OEL STEL [ppm]* | *125 ppm* |
| *France* | *VME (OEL TWA)* | *88.4 mg/m³* |
| *France* | *VME (OEL TWA) [ppm]* | *20 ppm* |
| *France* | *VLE (OEL C/STEL)* | *442 mg/m³* |
| *France* | *VLE (OEL C/STEL) [ppm]* | *100 ppm* |
| *Germany* | *Notes* | |
| *Netherlands* | *TGG-8u (OEL TWA)* | *215 mg/m³* |
| *Netherlands* | *TGG-8u (OEL TWA) [ppm]* | *49 ppm* |
| *Netherlands* | *TGG-15min (OEL STEL)* | *430 mg/m³* |
| *Netherlands* | *TGG-15min (OEL STEL) [ppm]* | *97 ppm* |
| *United Kingdom* | *WEL TWA (OEL TWA) [1]* | *441 mg/m³* |
| *United Kingdom* | *WEL TWA (OEL TWA) [2]* | *100 ppm* |
| *United Kingdom* | *WEL STEL (OEL STEL)* | *552 mg/m³* |
| *United Kingdom* | *WEL STEL (OEL STEL) [ppm]* | *125 ppm* |
| *USA - ACGIH* | *Local name* | *Ethylbenzene* |
| *USA - ACGIH* | *ACGIH OEL TWA [ppm]* | *20 ppm* |
| *USA - ACGIH* | *Remark (ACGIH)* | *TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI* |
| *USA - ACGIH* | *Regulatory reference* | *ACGIH 2019* |

| Titanium Dioxide (13463-67-7) | | |
|---|---|---|
| *Belgium* | *OEL TWA* | *10 mg/m³* |
| *France* | *VME (OEL TWA)* | *10 mg/m³* |
| *Germany* | *Notes* | |
| *United Kingdom* | *WEL TWA (OEL TWA) [1]* | *10 mg/m³*<br>*4 mg/m³* |
| *USA - ACGIH* | *ACGIH OEL TWA* | *0.2 mg/m³ (Respirable fraction)*<br>*2.5 mg/m³ (Respirable fraction)* |

### 8.2. Exposure controls

***Appropriate engineering controls:***

*Ensure good ventilation of the work station.*

***Personal protective equipment:***

*Dust formation: dust mask.*

| ***Hand protection:*** |
|---|
| *Protective gloves* |

| ***Eye protection:*** |
|---|
| *Safety glasses* |

| ***Skin and body protection:*** |
|---|
| *Wear suitable protective clothing* |

| ***Respiratory protection:*** |
|---|
| *[In case of inadequate ventilation] wear respiratory protection.* |

***Personal protective equipment symbol(s):***

***Environmental exposure controls:***

*Avoid release to the environment.*

## SECTION 9: Physical and chemical properties

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

*Physical state* : *Liquid*

*Appearance* : *Paste.*

*Colour* : *White, Black, Grey and various colors.*

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| | |
|---|---|
| *Odour* | *: characteristic.* |
| *Odour threshold* | *: No data available* |
| *pH* | *: No data available* |
| *Relative evaporation rate (butylacetate=1)* | *: No data available* |
| *Melting point* | *: Not applicable* |
| *Freezing point* | *: No data available* |
| *Boiling point* | *: No data available* |
| *Flash point* | *: No data available* |
| *Auto-ignition temperature* | *: No data available* |
| *Decomposition temperature* | *: No data available* |
| *Flammability* | *: No data available* |
| *Vapour pressure* | *: No data available* |
| *Relative vapour density at 20°C* | *: No data available* |
| *Relative density* | *: No data available* |
| *Density* | *: 1.16 g/cm³ ±0,03* |
| *Solubility* | *: insoluble in water.* |
| *Partition coefficient n-octanol/water (Log Pow)* | *: No data available* |
| *Viscosity, kinematic* | *: > 1724137.931 mm²/s* |
| *Viscosity, dynamic* | *: > 2000000 cP* |
| *Explosive properties* | *: No data available* |
| *Oxidising properties* | *: No data available* |
| *Explosive limits* | *: No data available* |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

*Acute toxicity (oral)* : *Not classified*

*Acute toxicity (dermal)* : *Not classified*

*Acute toxicity (inhalation)* : *Not classified*

| **4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)** | |
|---|---|
| *LD50 oral rat* | *2330 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral)* |
| *LD50 dermal rat* | *> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Skin)* |

| **xylene (1330-20-7)** | |
|---|---|
| *LD50 dermal rabbit* | *12126 mg/kg bodyweight Animal: rabbit, Animal sex: male* |

| **ethylbenzene (100-41-4)** | |
|---|---|
| *LD50 oral rat* | *3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))* |
| *LD50 dermal rabbit* | *15433 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))* |
| *LC50 Inhalation - Rat* | *17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))* |

| **Titanium Dioxide (13463-67-7)** | |
|---|---|
| *LD50 oral rat* | *> 2000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))* |
| *LC50 Inhalation - Rat* | *> 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))* |

*Skin corrosion/irritation* : *Not classified*

*Serious eye damage/irritation* : *Not classified*

*Respiratory or skin sensitisation* : *May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*Germ cell mutagenicity* : *Not classified*

*Carcinogenicity* : *Not classified.*

| **xylene (1330-20-7)** | |
|---|---|
| *IARC group* | *3 - Not classifiable* |

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| ethylbenzene (100-41-4) | |
|---|---|
| *IARC group* | *2B - Possibly carcinogenic to humans* |

| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8) | |
|---|---|
| *IARC group* | *3 - Not classifiable* |

| Titanium Dioxide (13463-67-7) | |
|---|---|
| *IARC group* | *2B - Possibly carcinogenic to humans* |

*Reproductive toxicity* : *Not classified*

*STOT-single exposure* : *Not classified*

*STOT-repeated exposure* : *Not classified*

| xylene (1330-20-7) | |
|---|---|
| *LOAEL (oral, rat, 90 days)* | *150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)* |

| ethylbenzene (100-41-4) | |
|---|---|
| *NOAEL (oral, rat, 90 days)* | *75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)* |

*Aspiration hazard* : *Not classified*

| Selsil PU Sealant 25/40 Shore A | |
|---|---|
| *Viscosity, kinematic* | *> 1724137.931 mm²/s* |

## SECTION 12: Ecological information

12.1. Toxicity

*Ecology - general* : *The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.*

*Hazardous to the aquatic environment, short–term (acute)* : *Not classified*

*Hazardous to the aquatic environment, long–term (chronic)* : *Not classified*

| 4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1) | |
|---|---|
| *LC50 - Fish [1]* | *> 45 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value)* |
| *EC50 - Crustacea [1]* | *> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)* |

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| | |
|---|---|
| *EC50 72h - Algae [1]* | *30 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)* |
| *EC50 72h - Algae [2]* | *25 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)* |
| *ErC50 algae* | *30 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)* |

| **xylene (1330-20-7)** | |
|---|---|
| *LC50 - Fish [1]* | *2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)* |
| *EC50 - Crustacea [1]* | *> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia* |
| *NOEC chronic fish* | *> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'* |

| **ethylbenzene (100-41-4)** | |
|---|---|
| *LC50 - Fish [1]* | *5.1 mg/l (ASTM, 96 h, Menidia menidia, Flow-through system, Salt water, Experimental value, Lethal)* |
| *EC50 - Crustacea [1]* | *1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)* |
| *EC50 72h - Algae [1]* | *5.4 mg/l (US EPA, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cell numbers)* |
| *EC50 72h - Algae [2]* | *5.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)* |
| *EC50 96h - Algae [1]* | *7.7 mg/l Test organisms (species): Skeletonema costatum* |
| *EC50 96h - Algae [2]* | *3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)* |
| *LOEC (chronic)* | *1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'* |
| *NOEC (chronic)* | *0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'* |

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| **Titanium Dioxide (13463-67-7)** | |
|---|---|
| *LC50 - Fish [1]* | *> 100 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)* |
| *EC50 - Crustacea [1]* | *19.3 mg/l Test organisms (species): Daphnia magna* |
| *EC50 - Crustacea [2]* | *27.8 mg/l Test organisms (species): Daphnia magna* |
| *EC50 72h - Algae [1]* | *> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)* |
| *ErC50 algae* | *61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)* |
| *NOEC (chronic)* | *≥ 2.92 mg/l Test organisms (species): Daphnia magna Duration: '21 d'* |

## 12.2. Persistence and degradability

| **4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)** | |
|---|---|
| *Persistence and degradability* | *Readily biodegradable in water.* |

| **ethylbenzene (100-41-4)** | |
|---|---|
| *Persistence and degradability* | *Biodegradable in the soil. Readily biodegradable in water.* |
| *Biochemical oxygen demand (BOD)* | *1.44 g $O_2$/g substance* |
| *Chemical oxygen demand (COD)* | *2.1 g $O_2$/g substance* |
| *ThOD* | *3.17 g $O_2$/g substance* |

| **Titanium Dioxide (13463-67-7)** | |
|---|---|
| *Persistence and degradability* | *Biodegradability: not applicable.* |
| *Chemical oxygen demand (COD)* | *Not applicable (inorganic)* |
| *ThOD* | *Not applicable (inorganic)* |

## 12.3. Bioaccumulative potential

| **4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)** | |
|---|---|
| *Partition coefficient n-octanol/water (Log Pow)* | *0.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)* |
| *Bioaccumulative potential* | *Low potential for bioaccumulation (Log Kow < 4).* |

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| **ethylbenzene (100-41-4)** | |
|---|---|
| *BCF - Fish [1]* | *1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)* |
| *Partition coefficient n-octanol/water (Log Pow)* | *3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)* |
| *Bioaccumulative potential* | *Low potential for bioaccumulation (BCF < 500).* |

| **4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)** | |
|---|---|
| *Partition coefficient n-octanol/water (Log Pow)* | *≈ 4.51 (n–octanol/su) 20 °C* |

| **Titanium Dioxide (13463-67-7)** | |
|---|---|
| *Bioaccumulative potential* | *Not bioaccumulative.* |

## 12.4. Mobility in soil

| **4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)** | |
|---|---|
| *Ecology - soil* | *No (test)data on mobility of the substance available.* |

| **ethylbenzene (100-41-4)** | |
|---|---|
| *Surface tension* | *71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)* |
| *Organic Carbon Normalized Adsorption Coefficient (Log Koc)* | *2.71 (log Koc, PCKOCWIN v1.66, QSAR)* |
| *Ecology - soil* | *Low potential for adsorption in soil. Toxic to soil organisms.* |

| **Titanium Dioxide (13463-67-7)** | |
|---|---|
| *Surface tension* | *No data available in the literature* |
| *Ecology - soil* | *Low potential for mobility in soil.* |

## 12.5. Results of PBT and vPvB assessment

| **Component** | |
|---|---|
| *4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)* | *This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII*<br>*This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII* |

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| | |
|---|---|
| *ethylbenzene (100-41-4)* | *This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII*<br>*This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII* |
| *Titanium Dioxide (13463-67-7)* | *This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII*<br>*This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII* |

12.6. Other adverse effects
No additional information available

## SECTION 13: Disposal considerations

13.1. Waste treatment methods

*Regional legislation (waste)* : *Disposal must be done according to official regulations.*

*Waste treatment methods* : *Dispose of contents/container in accordance with licensed collector's sorting instructions.*

*Sewage disposal recommendations* : *Disposal must be done according to official regulations.*

*Ecology - waste materials* : *Avoid release to the environment.*

*European List of Waste (LoW) code* : *08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances*
*15 01 10* - packaging containing residues of or contaminated by dangerous substances*

*R code/ D code* : *R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11*

## SECTION 14: Transport information

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

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| **14.1. UN number** | | | | |
| *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* |
| **14.2. UN proper shipping name** | | | | |
| *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* |
| **14.3. Transport hazard class(es)** | | | | |
| *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* |
| **14.4. Packing group** | | | | |
| *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* |
| **14.5. Environmental hazards** | | | | |
| *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* | *Not applicable* |

| |
|---|
| *No supplementary information available* |

14.6. Special precautions for user

***Overland transport***

*Not applicable*

***Transport by sea***

*Not applicable*

***Air transport***

*Not applicable*

***Inland waterway transport***

*Not applicable*

***Rail transport***

*Not applicable*

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

**15.1.1. EU-Regulations**

| *Listed on REACH Annex XVII (Restriction Conditions). The following restrictions are applicable:* | |
|---|---|
| *56. Methylenediphenyl diisocyanate (MDI)* | *4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate* |
| *56(a) Methylenediphenyl diisocyanate (MDI) isomers: 4,4'-Methylenediphenyl diisocyanate* | *4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate* |
| *74. Diisocyanates, O = C=N-R-N = C=O, with R an aliphatic or aromatic hydrocarbon unit of unspecified length* | *4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate* |

Contains no substance(s) listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

**15.1.2. National regulations**

***Germany***

*Regulatory reference* : *WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)*

| | |
|---|---|
| *Hazardous Incident Ordinance (12. BImSchV)* | *: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)* |

***Netherlands***

| | |
|---|---|
| *SZW-lijst van kankerverwekkende stoffen* | *: None of the components are listed* |
| *SZW-lijst van mutagene stoffen* | *: None of the components are listed* |
| *SZW-lijst van reprotoxische stoffen – Borstvoeding* | *: None of the components are listed* |
| *SZW-lijst van reprotoxische stoffen – Vruchtbaarheid* | *: None of the components are listed* |
| *SZW-lijst van reprotoxische stoffen – Ontwikkeling* | *: xylene is listed* |

***Denmark***

| | |
|---|---|
| *Danish National Regulations* | *: Young people below the age of 18 years are not allowed to use the product*<br>*Pregnant/breastfeeding women working with the product must not be in direct contact with the product*<br>*Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material*<br>*The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal*<br>*The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal* |

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

| ***Abbreviations and acronyms:*** | |
|---|---|
| *ADN* | *European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways* |
| *ADR* | *European Agreement concerning the International Carriage of Dangerous Goods by Road* |
| *ATE* | *Acute Toxicity Estimate* |
| *BCF* | *Bioconcentration factor* |
| *BLV* | *Biological limit value* |
| *BOD* | *Biochemical oxygen demand (BOD)* |

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| | |
|---|---|
| *COD* | *Chemical oxygen demand (COD)* |
| *DMEL* | *Derived Minimal Effect level* |
| *DNEL* | *Derived-No Effect Level* |
| *EC-No.* | *European Community number* |
| *EC50* | *Median effective concentration* |
| *EN* | *European Standard* |
| *IARC* | *International Agency for Research on Cancer* |
| *IATA* | *International Air Transport Association* |
| *IMDG* | *International Maritime Dangerous Goods* |
| *LC50* | *Median lethal concentration* |
| *LD50* | *Median lethal dose* |
| *LOAEL* | *Lowest Observed Adverse Effect Level* |
| *NOAEC* | *No-Observed Adverse Effect Concentration* |
| *NOAEL* | *No-Observed Adverse Effect Level* |
| *NOEC* | *No-Observed Effect Concentration* |
| *OECD* | *Organisation for Economic Co-operation and Development* |
| *OEL* | *Occupational Exposure Limit* |
| *PBT* | *Persistent Bioaccumulative Toxic* |
| *PNEC* | *Predicted No-Effect Concentration* |
| *RID* | *Regulations concerning the International Carriage of Dangerous Goods by Rail* |
| *SDS* | *Safety Data Sheet* |
| *STP* | *Sewage treatment plant* |
| *ThOD* | *Theoretical oxygen demand (ThOD)* |
| *TLM* | *Median Tolerance Limit* |
| *VOC* | *Volatile Organic Compounds* |
| *CAS-No.* | *Chemical Abstract Service number* |
| *N.O.S.* | *Not Otherwise Specified* |
| *vPvB* | *Very Persistent and Very Bioaccumulative* |

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| | |
|---|---|
| *ED* | *Endocrine disrupting properties* |

| ***Full text of H- and EUH-statements:*** | |
|---|---|
| *Acute Tox. 4 (Dermal)* | *Acute toxicity (dermal), Category 4* |
| *Acute Tox. 4 (Inhalation)* | *Acute toxicity (inhal.), Category 4* |
| *Asp. Tox. 1* | *Aspiration hazard, Category 1* |
| *Carc. 2* | *Carcinogenicity, Category 2* |
| *EUH204* | *Contains isocyanates. May produce an allergic reaction.* |
| *EUH211* | *Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.* |
| *Eye Irrit. 2* | *Serious eye damage/eye irritation, Category 2* |
| *Flam. Liq. 2* | *Flammable liquids, Category 2* |
| *Flam. Liq. 3* | *Flammable liquids, Category 3* |
| *H225* | *Highly flammable liquid and vapour.* |
| *H226* | *Flammable liquid and vapour.* |
| *H304* | *May be fatal if swallowed and enters airways.* |
| *H312* | *Harmful in contact with skin.* |
| *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.* |
| *Resp. Sens. 1* | *Respiratory sensitisation, Category 1* |
| *Skin Irrit. 2* | *Skin corrosion/irritation, Category 2* |
| *Skin Sens. 1* | *Skin sensitisation, Category 1* |
| *STOT RE 2* | *Specific target organ toxicity – Repeated exposure, Category 2* |

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| | |
|---|---|
| *STOT SE 3* | *Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation* |

SDS EU (Final)

*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.*