

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

1.1 Product identifier

Commercial Product Name **Fill & Fix – Component A**

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

Relevant identified uses liquid plug

*Recommended restrictions None under normal processing.

1.3 Details of the supplier of the safety data sheet

Company designation fischerwerke GmbH & Co. KG
Weinhalde 14-18
D-72178 Waldachtal
Telephone: +49(0)7443 12-0
FAX: +49(0)7443 12-4222
Email: info-sdb@fischer.de

Marketer Great Britain: Mrs Mirka Valovicova, fischer Fixing (UK) Ltd, Hithercroft
Road, Wallingford, Oxfordshire, OX10 9AT, Tel. 01491 827 920, Fax
01491 827 950

1.4 Emergency telephone number

Emergency telephone number +49(0)6132-84463 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Reg- Acute Tox. 4; H302
ulation (EC) No. 1272/2008

*Classification according to Di- Xn; R22
rective 67/548/EEC / 1999/45/
EEC

2.2 Label elements

Hazard pictogram



GHS07

Signal word

Warning

Hazardous component(s) to be indicated on label polypropylene glycol, 1, 4-butane diol

H-statement(s) H302: Harmful if swallowed.

P-statement(s) P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

SECTION 3: Composition/information on ingredients

*Chemical characterization Hardener (Crosslinker)

Hazardous ingredients

| Ingredient | | Classification (EEC) No 67/548 | Concentration |
|-------------------------------|---|---|-------------------------|
| | | Classification (EC) 1272/2008 | |
| polypropylene glycol | CAS No.: 25322-69-4 EC-No.: 500-039-8 REACH No.: 01-2119484612-36-0000 | Xn; R22 Acute Tox. 4; H302 | 25.0 – 50.0 % by weight |
| 1,4-butane diol | CAS No.: 110-63-4 EC-No.: 203-786-5 REACH No.: 01-2119471849-20-xxxx | Xn; R22 R67 Acute Tox. 4; H302 STOT SE 3; H336 | 2.5 – 10.0 % by weight |
| 1,4-diazabicyclo[2.2.2]octane | CAS No.: 280-57-9 EC-No.: 205-999-9 | F; R11 Xn; R22 Xi; R36/38 Flam. Sol. 2; H228 Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315 | < 2.5 % by weight |

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice If symptoms persist, call a physician.
Remove/Take off immediately all contaminated clothing.

If inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

In case of skin contact IF ON SKIN: Gently wash with plenty of soap and water.

In case of eye contact In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed If swallowed, seek medical advice immediately and show this container or label.
Clean mouth with water and drink afterwards plenty of water. Drink 1 or 2 glasses of water.
Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms None known.

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|-----------------------------|-------------------|
| Immediate medical attention | No data available |
| Special medical treatment | No data available |

SECTION 5: Firefighting measures

5.1 Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | Carbon dioxide (CO ₂) Dry powder Foam Water spray jet |
|------------------------------|--|

Extinguishing media which must not be used for safety reasons High volume water jet

5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases Heating or fire can release toxic gas.

5.3 Advice for firefighters

Special protective equipment for firefighting In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

Additional information on firefighting Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Keep containers and surroundings cool with water spray. Container may rupture on heating.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Environmental precautions The product should not be allowed to enter drains, water courses or the soil. Prevent spreading over a wide area (e.g. by containment or oil barriers).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up Use mechanical handling equipment. Treat recovered material as described in the section "Disposal considerations".

6.4 Reference to other sections

Reference to other sections See chapter 7/8/13

6.5 Additional information

Other information Dispose of in accordance with local regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling None under normal processing.

Advice on protection against fire and explosion No special precautions required.

7.2 Conditions for safe storage, including any incompatibilities

Storage space and container requirements Keep containers tightly closed in a cool, well-ventilated place.
Store in accordance with local regulations.
Keep only in original container.

Hints on storage assembly Store in accordance with the particular national regulations.

TRGS 510 LGK 10–13

7.3 Specific end use(s)

Specific use(s) Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Respiratory protection No personal respiratory protective equipment normally required.

Hand protection

Suitable material: attached disposable gloves

Break through time: < 30 min

Remarks: The attached gloves are intended as protection against short-term use.

Reference substance: After contamination immediately change gloves.

Suitable material: butyl-rubber, Nitrile rubber, Chloroprene

Unsuitable material: PVC disposable gloves

Material thickness: $\geq 0,5$ mm

Break through time: > 120 min

| | |
|---|---|
| Remarks: | Replace when worn. Request information on glove permeation properties from the glove supplier. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). |
| Eye protection | Tightly fitting safety goggles |
| Skin and body protection | Wear suitable protective equipment. |
| Note: | Choose body protection according to the amount and concentration of the dangerous substance at the work place. |
| General protective and hygiene measures | Smoking, eating and drinking should be prohibited in the application area. Avoid contact with skin, eyes and clothing. Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feedingstuffs. Use protective skin cream before handling the product. |
| Information on environmental protection regulations | No special environmental precautions required. |
| Engineering measures | Not applicable. |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|----------------------------|
| Form | paste |
| Colour | white |
| Odour | characteristic |
| Odour threshold | not determined |
| pH | No data available |
| Melting point [°C] | No data available |
| Boiling point [°C] | no data available |
| Flash point [°C] | No data available > 100 |
| Evaporation rate [kg/(s*m ²)] | No data available |
| Flammability | No data available |
| Explosion limits [Vol-%] | |
| Lower limit: | not determined |
| Upper limit: | not determined |
| Vapour pressure [kPa] | not determined |

| | |
|--|-------------------------------|
| Density [g/cm ³] | 0,73 – 0,77 g/cm ³ |
| Temperature: | 20 °C |
| Water solubility [g/l] | not determined |
| Solubility [g/l] | No data available |
| Partition coefficient n-octanol / water (log P O/W) | No data available |
| Autoignition temperature [°C] | not determined |
| Autoinflammability | not auto-flammable |
| Viscosity, dynamic [kg/(m*s)] | 60 – 90 Pas |
| Risk of explosion. | Not explosive |

SECTION 10: Stability and reactivity

10.1 Reactivity

Thermal decomposition No decomposition if stored and applied as directed.

10.2 Chemical stability

Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid No decomposition if used as directed.

10.6 Hazardous decomposition products

Hazardous decomposition prod- No decomposition if used as directed.
ucts

SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.2 Additional information

Other information (chapter 11.) There is no data available for this product.

SECTION 12: Ecological information

12.1 Toxicity

12.2 Persistence and degradability

Elimination and distribution mechanisms There is no data available for this product.

Elimination in purification plant There is no data available for this product.

Biodegradability There is no data available for this product.

12.3 Bioaccumulative potential

Bioaccumulation There is no data available for this product.

Bioconcentration factor (BCF) There is no data available for this product.

12.4 Mobility in soil

Distribution in the environment There is no data available for this product.

Mobility There is no data available for this product.

12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Further information on ecology No information on ecology is available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal considerations The product should not be allowed to enter drains, water courses or the soil.
Dispose of waste according to applicable legislation.
Empty remaining contents.

Waste Code According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
The following Waste Codes are only suggestions:
Product (Mortar and Curing agent)
200127 – paint, inks, adhesives and resins containing dangerous substances
080409 – waste adhesives and sealants containing organic solvents or other dangerous substances
cured material and completely squeezed cartridges

200000 – MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

SECTION 14: Transport information

14.8 Additional information

Other information (chapter 14.) Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, ICAO/IATA-DGR

SECTION 15: Regulatory information

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

Water hazard class (self-classification) 1

15.2 Chemical safety assessment

Safety assessment Not relevant. Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Relevant R-phrases R11: Highly flammable.
R22: Harmful if swallowed.
R36/38: Irritating to eyes and skin.
R67: Vapours may cause drowsiness and dizziness.

Relevant H-phrases H228: Flammable solid.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Wording of the hazard classes Acute Tox.: Acute toxicity
STOT SE: Specific target organ toxicity – single exposure
Flam. Sol.: Flammable solid
Eye Irrit.: Serious eye irritation
Skin Irrit.: Skin irritation

*Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

| Classification | Evaluation |
|--------------------|------------|
| Acute Tox. 4; H302 | Calculated |

*Recommended restrictions None under normal processing.

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.

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

1.1 Product identifier

Commercial Product Name **Fill & Fix – Component B**

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

Relevant identified uses liquid plug

*Recommended restrictions None under normal processing.

1.3 Details of the supplier of the safety data sheet

Company designation fischerwerke GmbH & Co. KG
Weinhalde 14-18
D-72178 Waldachtal
Telephone: +49(0)7443 12-0
FAX: +49(0)7443 12-4222
Email: info-sdb@fischer.de

Marketer Great Britain: Mrs Mirka Valovicova, fischer Fixing (UK) Ltd, Hithercroft
Road, Wallingford, Oxfordshire, OX10 9AT, Tel. 01491 827 920, Fax
01491 827 950

1.4 Emergency telephone number

Emergency telephone number +49(0)6132-84463 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

*Classification according to Reg- Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens.
ulation (EC) No. 1272/2008 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 Aquatic
Chronic 2; H411

*Classification according to Di- Carc.Cat.3; R40 R42/43 Xn; R20 Xi; R36/37/38 R53
rective 67/548/EEC / 1999/45/
EEC

2.2 Label elements

*Hazard pictogram



GHS07



GHS08



GHS09

Signal word

Danger

Hazardous component(s) to be indicated on label 4, 4'-methylenediphenyl diisocyanate, isomers and homologues, Aromatic polyisocyanate prepolymer, o-(p-isocyanatobenzyl)phenyl isocyanate, 4, 4'-methylenediphenyl diisocyanate

*H-statement(s)
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 .
H411: Toxic to aquatic life with long lasting effects.

*P-statement(s)
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Further information EUH204: Contains isocyanates. May produce an allergic reaction.

SECTION 3: Composition/information on ingredients

*Chemical characterization resin

Hazardous ingredients

| Ingredient | | Classification (EEC) No 67/548 | Concentration |
|---|---|--|-------------------------|
| | | Classification (EC) 1272/2008 | |
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues | CAS No.: 9016-87-9 Index-No.: 615-005-01-6 | Carc.Cat.3; R40 R42/43 Xn; R20-48/20 Xi; R36/37/38 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 STOT RE 2; H373 | 25.0 – 50.0 % by weight |
| Aromatic polyisocyanate prepolymer | CAS No.: 67815-87-6 | Xn; R42/43 N; R51/53 Resp. Sens. 1; H334 Skin Sens. 1; H317 Aquatic Chronic 2; H411 | 25.0 – 50.0 % by weight |
| o-(p-isocyanatobenzyl)phenyl isocyanate | CAS No.: 5873-54-1 EC-No.: 227-534-9 Index-No.: 615-005-00-9 REACH No.: 01-2119480143-45-xxxx, 01-2119480143-45-xxxx, 01-2119480143-45-xxxx | Carc. Cat. 3; R40 Xn; R20-48/20 Xi; R36/37/38 R42/43 Carc. 2; H351 Acute Tox. 4; 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 | 2.5 – 10.0 % by weight |

| Ingredient | | Classification (EEC) No 67/548 | Concentration |
|-------------------------------------|--|---|------------------------|
| | | Classification (EC) 1272/2008 | |
| 4,4'-methylenediphenyl diisocyanate | CAS No.: 101-68-8 EC-No.: 202-966-0 Index-No.: 615-005-00-9 REACH No.: 01-2119457014-47-xxxx, 01-2119457014-47-xxxx, 01-2119457014-47-xxxx, 01-2119457014-47-xxxx | Carc. Cat. 3; R40 Xn; R20-48/20 Xi; R36/37/38 R42/43 | 2.5 – 10.0 % by weight |
| | | Carc. 2; H351 Acute Tox. 4; 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 | |

SECTION 4: First aid measures

4.1 Description of first aid measures

| | |
|-------------------------|---|
| General advice | If symptoms persist, call a physician. Remove/Take off immediately all contaminated clothing. |
| If inhaled | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| In case of skin contact | IF ON SKIN: Gently wash with plenty of soap and water. |
| In case of eye contact | In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. |
| If swallowed | If swallowed, seek medical advice immediately and show this container or label. Clean mouth with water and drink afterwards plenty of water. Drink 1 or 2 glasses of water. Do NOT induce vomiting. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|----------|-------------|
| Symptoms | None known. |
|----------|-------------|

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|-----------------------------|-------------------|
| Immediate medical attention | No data available |
| Special medical treatment | No data available |

SECTION 5: Firefighting measures

5.1 Extinguishing media

| | |
|---|---|
| Suitable extinguishing media | Carbon dioxide (CO2) Dry powder Foam Water spray jet |
| Extinguishing media which must not be used for safety reasons | High volume water jet |

5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases Heating or fire can release toxic gas.

5.3 Advice for firefighters

Special protective equipment for firefighting In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

Additional information on firefighting Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Keep containers and surroundings cool with water spray. Container may rupture on heating.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Environmental precautions The product should not be allowed to enter drains, water courses or the soil. Prevent spreading over a wide area (e.g. by containment or oil barriers).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up Use mechanical handling equipment. Treat recovered material as described in the section "Disposal considerations".

6.4 Reference to other sections

Reference to other sections See chapter 7/8/13

6.5 Additional information

Other information Dispose of in accordance with local regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling None under normal processing.

Advice on protection against fire and explosion No special precautions required.

7.2 Conditions for safe storage, including any incompatibilities

Storage space and container requirements Keep containers tightly closed in a cool, well-ventilated place.
Store in accordance with local regulations.
Keep only in original container.

Hints on storage assembly Store in accordance with the particular national regulations.

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7.3 Specific end use(s)

Specific use(s) Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

diphenylmethane-4,4'-diisocyanate

DNEL

| Value | Target group | Exposure route | Exposure frequency | Remarks | Source |
|----------------------------|--------------|----------------|---------------------|--|--------|
| 50 mg/kg/d | Workers | dermal | Short-term (single) | DNEL acute dermal, short-term (systemic) | 100 |
| 0,1 mg/m ³ Air | Workers | Inhalation | Short-term (single) | DNEL acute inhalative (systemic) | 100 |
| 28,7 mg/cm ² | Workers | dermal | Short-term (single) | Local effects | 100 |
| 0,1 mg/m ³ Air | Workers | Inhalation | Short-term (single) | Local effects | 100 |
| 0,05 mg/m ³ Air | Workers | Inhalation | Long term effects | DNEL long-term inhalative (systemic) | 100 |
| 0,05 mg/m ³ Air | Workers | Inhalation | Long term effects | Local effects | 100 |
| 25 mg/kg bw/day | consumer | Skin contact | Short-term (single) | DNEL acute dermal, short-term (systemic) | 100 |
| 0,05 mg/m ³ | consumer | Inhalation | Short-term (single) | DNEL acute inhalative (systemic) | 100 |
| 20 mg/kg bw/day | consumer | Oral | Short-term (single) | DNEL short-term oral (acute) | 100 |
| 17,2 mg/cm ² | consumer | Skin contact | Short-term (single) | DNEL acute dermal, short-term (local) | 100 |
| 0,05 mg/m ³ | consumer | Inhalation | Short-term (single) | DNEL acute inhalative (local) | 100 |
| 0,025 mg/m ³ | consumer | Inhalation | Long term effects | DNEL long-term inhalative (systemic) | 100 |
| 0,025 mg/m ³ | consumer | Inhalation | Long term effects | DNEL long-term inhalative (local) | 100 |

100 – Firmendaten

PNEC

| Value | Target group | Source |
|------------|-----------------------------------|--------|
| > 1 mg/l | freshwater | 100 |
| > 0,1 mg/l | marine water | 100 |
| > 1 mg/kg | Soil | 100 |
| > 1 mg/l | PNEC sewage treatment plant (STP) | 100 |

100 – Firmendaten

8.2 Exposure controls

| | |
|---|---|
| Respiratory protection | No personal respiratory protective equipment normally required. |
| Hand protection | |
| Suitable material: | butyl–rubber, Nitrile rubber, Chloroprene |
| Unsuitable material: | PVC disposable gloves |
| Material thickness: | >= 0,5 mm |
| Break through time: | > 120 min |
| Remarks: | Replace when worn. Request information on glove permeation properties from the glove supplier. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). |
| Suitable material: | attached disposable gloves |
| Break through time: | < 30 min |
| Remarks: | The attached gloves are intended as protection against short–term use. |
| Reference substance: | After contamination immediately change gloves. |
| Eye protection | Tightly fitting safety goggles |
| Skin and body protection | Wear suitable protective equipment. |
| Note: | Choose body protection according to the amount and concentration of the dangerous substance at the work place. |
| General protective and hygiene measures | Smoking, eating and drinking should be prohibited in the application area. Avoid contact with skin, eyes and clothing. Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feedingstuffs. Use protective skin cream before handling the product. |
| Information on environmental protection regulations | No special environmental precautions required. |
| Engineering measures | Not applicable. |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|-------------------------------------|
| Form | paste |
| Colour | beige |
| Odour | characteristic |
| Odour threshold | not determined |
| pH | not determined No data available |
| Melting point [°C] | No data available |
| Boiling point [°C] | no data available |
| Flash point [°C] | No data available |
| Evaporation rate [kg/(s*m ²)] | No data available |
| Flammability | No data available |
| Explosion limits [Vol-%] | |
| Lower limit: | not determined |
| Upper limit: | not determined |
| Vapour pressure [kPa] | not determined |
| Density [g/cm ³] | 1,16 – 1,20 g/cm ³ |
| Temperature: | 20 °C |
| Water solubility [g/l] | Water Reactive |
| Solubility [g/l] | No data available |
| Partition coefficient n-octanol / water (log P O/W) | No data available |
| Autoignition temperature [°C] | not determined |
| Autoinflammability | not auto-flammable |
| Viscosity, dynamic [kg/(m*s)] | 35 – 55 Pas |
| Temperature: | 20 °C |
| Risk of explosion. | Not explosive |

SECTION 10: Stability and reactivity

10.1 Reactivity

Thermal decomposition No decomposition if stored and applied as directed.

10.2 Chemical stability

Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid No decomposition if used as directed.

10.6 Hazardous decomposition products

Hazardous decomposition products No decomposition if used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Hazardous ingredients

diphenylmethanediisocyanate, isomeres and homologues

| |
|--|
| LC50 Inhalation 4h for dusts and sprays [mg/l] |
|--|

| |
|-----|
| 368 |
|-----|

Aromatic polyisocyanate prepolymer

Irritant effect on skin No skin irritation

Measuring method OECD 404

Test species rabbit

Irritant effect on eyes Acute eye irritation/corrosion

Measuring method OECD Test Guideline 405

Test species rabbit

Sensitization May cause sensitization by inhalation and skin contact.

diphenylmethane-4,4'-diisocyanate

Irritant effect on skin Irritant

Measuring method OECD 404

Test species rabbit

Irritant effect on eyes Irritant

Irritant effect on the respiratory tract Irritant

Sensitization Sensitising

Exposure type Dermal

Sensitising

Exposure type Inhalation

Oral toxicity [mg/kg]

| Value | Test criterion | Test species | Remarks |
|--------|----------------|--------------|---|
| > 5000 | LD50 | rat | 4,4'-methylenediphenyl diisocyanate, isomers and homologues (CAS 9016-87-9) |

Dermal toxicity [mg/kg]

| Value | Test criterion | Test species | Remarks |
|--------|----------------|--------------|---|
| > 5000 | LD50 | rabbit | 4,4'-methylenediphenyl diisocyanate, isomers and homologues (CAS 9016-87-9) |

Inhalative toxicity [mg/l]

| Value | Test criterion | Duration of dosage | Test species | Note |
|-------|----------------|--------------------|--------------|---|
| 0,49 | LC50 | 4 h | rat | 4,4'-methylenediphenyl diisocyanate, isomers and homologues (CAS 9016-87-9) |

11.2 Additional information

Other information (chapter 11.) The product itself has not been tested.
There is no data available for this product.

SECTION 12: Ecological information

12.1 Toxicity

Hazardous ingredients

Aromatic polyisocyanate prepolymer

| NOEC (Daphnie) [mg/l] | Duration of dosage | Test species | Measuring method | Test criterion |
|-----------------------|--------------------|---------------------------------|------------------|----------------|
| > 10 | 21 d | Daphnia magna (Big water flea). | OECD 202 | NOEC |

diphenylmethane-4,4'-diisocyanate

| NOEC (Daphnie) [mg/l] | Duration of dosage | Test species | Measuring method | Test criterion |
|-----------------------|--------------------|---------------------------------|------------------|----------------|
| > 10 | 21 d | Daphnia magna (Big water flea). | OECD 202 | NOEC |

Toxicity to fish [mg/l]

| Value | Test criterion | Duration of dosage | Remarks |
|--------|----------------|--------------------|---|
| > 1000 | LC0 | 96 h | 4,4'-methylenediphenyl diisocyanate, isomers and homologues (CAS 9016-87-9) |

Toxicity to daphnia [mg/l]

| Value | Test criterion | Test species | Exposure duration | Remarks |
|--------|----------------|----------------------------|-------------------|---|
| > 5000 | EC0 | Daphnia magna (Water flea) | 24 h | 4,4'-methylenediphenyl diisocyanate, isomers and homologues (CAS 9016-87-9) |

Toxicity to algae [mg/l]

| Value | Test criterion | Test species | Exposure duration | Remarks |
|-------|----------------|-------------------------|-------------------|---|
| 1640 | EC0 | Scenedesmus subspicatus | 72 h | 4,4'-methylenediphenyl diisocyanate, isomers and homologues (CAS 9016-87-9) |

12.2 Persistence and degradability

Elimination and distribution mechanisms There is no data available for this product.

Elimination in purification plant There is no data available for this product.

Biodegradability There is no data available for this product.

12.3 Bioaccumulative potential

Bioaccumulation There is no data available for this product.

Bioconcentration factor (BCF) There is no data available for this product.

12.4 Mobility in soil

Distribution in the environment There is no data available for this product.

Mobility There is no data available for this product.

12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Further information on ecology The product itself has not been tested.
No information on ecology is available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal considerations Disposal together with normal waste is not allowed. Special disposal required according to local regulations.
The product should not be allowed to enter drains, water courses or the soil.
Empty remaining contents.

Dispose of waste according to applicable legislation.




Waste Code

Product
200127 – paint, inks, adhesives and resins containing dangerous substances
080000 – WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
080400 – wastes from MFSU of adhesives and sealants (including waterproofing products)
080409 – waste adhesives and sealants containing organic solvents or other dangerous substances
cured material
200000 – MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
The following Waste Codes are only suggestions:
Product (Mortar and Curing agent)
cured material and completely squeezed cartridges

Uncleaned empty packaging Dispose of as unused product.

SECTION 14: Transport information

| | *Land transport ADR/RID | *Marine transport IMDG | *Air transport ICAO/IA-TA |
|----------------------------|---|--|--|
| UN-No | 3077 | 3077 | 3077 |
| Class | 9 | 9 | 9 |
| Packaging group | III | III | III |
| Description of the goods | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Aromatic polyisocyanate prepolymer) No dangerous good according to ADR | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Aromatic polyisocyanate prepolymer) No dangerous good according to IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Aromatic polyisocyanate prepolymer) No dangerous good according to IATA |
| Proper shipping name | | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Aromatic polyisocyanate prepolymer) Non dangerous good | Environmentally hazardous substance, solid, n.o.s. (Aromatic polyisocyanate prepolymer) Non dangerous good |
| Remarks | LQ: 5 kg | LQ: 5 kg | |
| Danger releasing substance | Aromatic polyisocyanate prepolymer | Aromatic polyisocyanate prepolymer | Aromatic polyisocyanate prepolymer |
| Labels | 9  | 9  | 9  |
| Risk No. | 90 | | |
| Category | 3 | | |
| Classification Code | M7 | | |
| Tunnel restriction code | E | | |

| | *Land transport ADR/RID | *Marine transport IMDG | *Air transport ICAO/IA-TA |
|-----------------------|-------------------------------|------------------------|-------------------------------|
| Environmental hazards | U – Environmentally hazardous | U – marine pollutant | U – Environmentally hazardous |
| EmS | | F-A;S-F | |
| Stowage category | | A | |

14.8 Additional information

Other information (chapter 14.) Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, ICAO/IATA-DGR

SECTION 15: Regulatory information

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

Water hazard class (self-classification) 1

15.2 Chemical safety assessment

Safety assessment Not relevant.
Not relevant. Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Relevant R-phrases R20: Harmful by inhalation.
R36/37/38: Irritating to eyes, respiratory system and skin.
R40: Limited evidence of a carcinogenic effect.
R42/43: May cause sensitisation by inhalation and skin contact.
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53: May cause long-term adverse effects in the aquatic environment.

Relevant H-phrases 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 .
H411: Toxic to aquatic life with long lasting effects.
EUH204: Contains isocyanates. May produce an allergic reaction.

Wording of the hazard classes Acute Tox.: Acute toxicity

Material Safety Data Sheet as per regulation (EC)
1907/2006

Commercial Product Name: **Fill & Fix – Component B**

Revision date: 03.09.2013

Version: 5.0/en

Print date: 03.09.2013

Skin Irrit.: Skin irritation
Eye Irrit.: Serious eye irritation
Resp. Sens.: Respiratory sensitization
Skin Sens.: Skin sensitization
Carc.: Carcinogenicity
STOT SE: Specific target organ toxicity – single exposure
Aquatic Chronic: Hazardous to the aquatic environment
STOT RE: Specific target organ toxicity – repeated exposure

*Classification for mixtures
and used evaluation method
according to regulation (EC)
1207/2008 [CLP]

| Classification | Evaluation |
|-------------------------|------------|
| Acute Tox. 4; H332 | Calculated |
| Skin Irrit. 2; H315 | Calculated |
| Eye Irrit. 2; H319 | Calculated |
| Resp. Sens. 1; H334 | Calculated |
| Skin Sens. 1; H317 | Calculated |
| Carc. 2; H351 | Calculated |
| STOT SE 3; H335 | Calculated |
| Aquatic Chronic 2; H411 | Calculated |

*Recommended restrictions None under normal processing.

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.