



Page 1 of 24
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 01.11.2021 / 0005
Replacing version dated / version: 03.09.2021 / 0004
Valid from: 01.11.2021
PDF print date: 01.11.2021
4F-Sealing 1K-PUR 15 kg
Art.: 9095825

Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

4F-Sealing 1K-PUR 15 kg
Art.: 9095825

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

Relevant identified uses of the substance or mixture:

Coating

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

BTI Befestigungstechnik GmbH & Co. KG
Salzstr. 51
74653 Ingelfingen
Tel.: +49 7940 141 141
Fax: +49 7940 141 9141
Email: info@bti.de
Homepage: www.bti.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (BRC)
+1 872 5888271 (BRC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

| Hazard class | Hazard category | Hazard statement |
|---------------------|------------------------|---|
| Flam. Liq. | 3 | H226-Flammable liquid and vapour. |
| STOT RE | 2 | H373-May cause damage to organs through prolonged or repeated exposure (organs of hearing). |
| Eye Irrit. | 2 | H319-Causes serious eye irritation. |
| Skin Irrit. | 2 | H315-Causes skin irritation. |



Page 2 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | |
|-----------------|---|---|
| Resp. Sens. | 1 | H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin Sens. | 1 | H317-May cause an allergic skin reaction. |
| Asp. Tox. | 1 | H304-May be fatal if swallowed and enters airways. |
| Aquatic Chronic | 3 | H412-Harmful to aquatic life with long lasting effects. |

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H226-Flammable liquid and vapour. H373-May cause damage to organs through prolonged or repeated exposure (organs of hearing). H319-Causes serious eye irritation. H315-Causes skin irritation. H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317-May cause an allergic skin reaction. H304-May be fatal if swallowed and enters airways. H412-Harmful to aquatic life with long lasting effects.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260-Do not breathe vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves / eye protection / face protection.

P301+P310-IF SWALLOWED: Immediately call a POISON CENTER / doctor. P304+P340-IF INHALED: Remove person to fresh air and keep comfortable for breathing. P314-Get medical advice / attention if you feel unwell. P331-Do NOT induce vomiting.

EUH204-Contains isocyanates. May produce an allergic reaction.

EUH211-Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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

m-tolylidene diisocyanate

4,5-Dichloro-2-octyl-2H-isothiazol-3-one

Reaction mass of ethylbenzene and m-xylene and p-xylene

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

Dangerous vapours heavier than air.

In case of spreading near the ground, flashback to distance sources of ignition is possible.



Page 3 of 24
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 01.11.2021 / 0005
 Replacing version dated / version: 03.09.2021 / 0004
 Valid from: 01.11.2021
 PDF print date: 01.11.2021
 4F-Sealing 1K-PUR 15 kg
 Art.: 9095825

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

| Reaction mass of ethylbenzene and m-xylene and p-xylene | Substance for which an EU exposure limit value applies. |
|--|---|
| Registration number (REACH) | 01-2119488216-32-XXXX |
| Index | --- |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 905-562-9 |
| CAS | --- |
| content % | 15-<20 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 (organs of hearing) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 |

| Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm) | |
|--|-------------------------------|
| Registration number (REACH) | --- |
| Index | 022-006-002 |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 236-675-5 |
| CAS | 13463-67-7 |
| content % | 2-<3 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Carc. 2, H351 (as inhalation) |

| m-tolylidene diisocyanate | |
|--|---|
| Registration number (REACH) | 01-2119454791-34-XXXX |
| Index | 615-006-00-4 |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 247-722-4 |
| CAS | 26471-62-5 |
| content % | 0,1-<0,5 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Acute Tox. 1, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 Aquatic Chronic 3, H412 |
| Specific Concentration Limits and ATE | Resp. Sens. 1, H334: >=0,1 % |

| 4,5-Dichloro-2-octyl-2H-isothiazol-3-one | |
|--|--------------|
| Registration number (REACH) | --- |
| Index | 613-335-00-8 |



Page 4 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | |
|---|---|
| EINECS, ELINCS, NLP, REACH-IT List-No. | 264-843-8 |
| CAS | 64359-81-5 |
| content % | 0,0025-<0,025 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | EUH071 Acute Tox. 2, H330 Acute Tox. 4, H302 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| Specific Concentration Limits and ATE | Skin Irrit. 2, H315: $\geq 0,025$ % Eye Irrit. 2, H319: $\geq 0,025$ % Skin Sens. 1A, H317: $\geq 0,0015$ % ATE (oral): 567 mg/kg ATE (as inhalation, Mist): 0,16 mg/l/4h |

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

Danger of aspiration.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

Watering eyes

Drying of the skin.

Dermatitis (skin inflammation)

Allergic reaction possible.

In case of sensitivity, concentrations below the limit value may already result in asthmatic symptoms.



Page 5 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

Ingestion:

Nausea

Vomiting

Danger of aspiration.

Oedema of the lungs

Chemical pneumonitis (condition similar to pneumonia)

4.3 Indication of any immediate medical attention and special treatment needed

Gastric lavage (stomach washing) only under endotracheal intubation.

Subsequent observation for pneumonia and pulmonary oedema.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Toxic gases

Formation of highly flammable vapour/air mixtures possible.

Explosive vapour/air or gas/air mixtures.

Danger of bursting (explosion) when heated

Hydrocyanic acid (hydrogen cyanide)

Oxides of nitrogen

5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Keep unprotected persons away.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.



Page 6 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

Fill the absorbed material into lockable containers.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid inhalation of the vapours.

Keep away from sources of ignition - Do not smoke.

Take precautions against electrostatic charges.

Avoid contact with eyes or skin.

No contact with products of this type in case of allergies, asthma und chronic respiratory tract disorders.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Observe special storage conditions.

Under all circumstances prevent penetration into the soil.

Do not store with flammable or self-igniting materials.

Protect from direct sunlight and warming.

Store in a well ventilated place.

Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters



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Page 7 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| Chemical Name | Reaction mass of ethylbenzene and m-xylene and p-xylene | | Content %:15-<20 |
|---|--|-----|--------------------|
| WEL-TWA: 220 mg/m ³ (50 ppm) (WEL), 50 ppm (221 mg/m ³) (EU) (Xylene), 100 ppm (441mg/m ³) (WEL), 100 ppm (442 mg/m ³) (EU) (Ethylbenzene) | WEL-STEL: 100 ppm (441 mg/m ³ (WEL), 100 ppm (442 mg/m ³) (EU) (Xylene), 125 ppm (552 mg/m ³) (WEL), 200 ppm (884 mg/m ³) (EU) (Ethylbenzene) | --- | |
| Monitoring procedures: | INSHT MTA/MA-030/A92 (Determination of aromatic hydrocarbons (benzene, toluene, ethylbenzene, p-xylene, 1,2,4-trimethylbenzene) in air - Charcoal tube method / Gas chromatography) - 1992 - EU project BC/CEN/ENTR/000/2002-16 card 47-1 (2004) - OSHA 1002 (Xylenes (o-, m-, p-isomers) Ethylbenzene) - 1999 - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Draeger - Hydrocarbons 2/a (81 03 581) | | |
| BMGV: 650 mmol methyl hippuric acid/mol creatinine in urine, post shift (Xylene, o-, m-, p- or mixed isomers) (BMGV) (Xylene) | Other information: Sk (WEL) (Xylene), Sk (WEL) (Ethylbenzene) | | |
| Chemical Name | Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm) | | Content %:2-<3 |
| WEL-TWA: 10 mg/m ³ (total inhalable dust), 4 mg/m ³ (respirable dust) | WEL-STEL: --- | --- | |
| Monitoring procedures: | --- | | |
| BMGV: --- | Other information: --- | | |
| Chemical Name | m-tolylidene diisocyanate | | Content %:0,1-<0,5 |
| WEL-TWA: 0,02 mg/m ³ (Isocyanates, all (as -NCO)) | WEL-STEL: 0,07 mg/m ³ (Isocyanates, all (as -NCO)) | --- | |
| Monitoring procedures: | --- | | |
| BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (At the end of the period of exposure) | Other information: Sen (Isocyanates, all (as -NCO)) | | |
| Chemical Name | Calcium carbonate | | Content %: |
| WEL-TWA: 4 mg/m ³ (respirable dust), 10 mg/m ³ (total inhalable dust) | WEL-STEL: --- | --- | |
| Monitoring procedures: | --- | | |
| BMGV: --- | Other information: --- | | |

| Reaction mass of ethylbenzene and m-xylene and p-xylene | | | | | | |
|---|--|------------------|------------|-------|-------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - freshwater | | PNEC | 0,327 | mg/l | |
| | Environment - marine | | PNEC | 0,327 | mg/l | |
| | Environment - sediment, freshwater | | PNEC | 12,46 | mg/kg | |
| | Environment - sediment, marine | | PNEC | 12,46 | mg/kg | |
| | Environment - soil | | PNEC | 2,31 | mg/kg | |



Page 8 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | | | | | |
|---------------------|--------------------------------------|------------------------------|------|------|-------|--|
| | Environment - sewage treatment plant | | PNEC | 6,58 | mg/l | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 221 | mg/m3 | |
| Workers / employees | Human - inhalation | Short term, systemic effects | DNEL | 442 | mg/m3 | |

| Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm) | | | | | | |
|--|--|-----------------------------|-------------------|--------------|-------------|-------------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - freshwater | | PNEC | 0,184 | mg/l | |
| | Environment - marine | | PNEC | 0,0184 | mg/l | |
| | Environment - water, sporadic (intermittent) release | | PNEC | 0,193 | mg/l | |
| | Environment - sewage treatment plant | | PNEC | 100 | mg/l | |
| | Environment - sediment, freshwater | | PNEC | 1000 | mg/kg dw | |
| | Environment - sediment, marine | | PNEC | 100 | mg/kg dw | |
| | Environment - soil | | PNEC | 100 | mg/kg dw | |
| | Environment - oral (animal feed) | | PNEC | 1667 | mg/kg feed | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 700 | mg/kg bw/d | |
| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 10 | mg/m3 | |



WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).

(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU).

(10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.



Page 9 of 24
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 01.11.2021 / 0005
Replacing version dated / version: 03.09.2021 / 0004
Valid from: 01.11.2021
PDF print date: 01.11.2021
4F-Sealing 1K-PUR 15 kg
Art.: 9095825

(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14)
= The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

Recommended

Protective gloves in butyl rubber (EN ISO 374).

Minimum layer thickness in mm:

$\geq 0,5$

Protective gloves made of fluorocarbon rubber (EN ISO 374).

Minimum layer thickness in mm:

$\geq 0,4$

Permeation time (penetration time) in minutes:

≥ 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable



Page 10 of 24
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 01.11.2021 / 0005
Replacing version dated / version: 03.09.2021 / 0004
Valid from: 01.11.2021
PDF print date: 01.11.2021
4F-Sealing 1K-PUR 15 kg
Art.: 9095825

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| Physical state: | Liquid |
| Colour: | According to specification |
| Odour: | Characteristic |
| Melting point/freezing point: | There is no information available on this parameter. |
| Boiling point or initial boiling point and boiling range: | 130-150 °C (Reaction mass of ethylbenzene and m-xylene and p-xylene) |
| Flammability: | Flammable |
| Lower explosion limit: | 0,8 Vol-% |
| Upper explosion limit: | There is no information available on this parameter. |
| Flash point: | 31 °C (Pensky-Martens, closed cup) |
| Auto-ignition temperature: | 480 °C (Reaction mass of ethylbenzene and m-xylene and p-xylene) |
| Decomposition temperature: | There is no information available on this parameter. |
| pH: | Mixture is non-soluble (in water). |
| Kinematic viscosity: | 398 s (23°C, ISO 2431) |
| Solubility: | Not miscible |
| Partition coefficient n-octanol/water (log value): | Does not apply to mixtures. |
| Vapour pressure: | There is no information available on this parameter. |
| Density and/or relative density: | 1,39-1,41 g/cm ³ (20°C) |
| Relative vapour density: | There is no information available on this parameter. |
| Particle characteristics: | Does not apply to liquids. |

9.2 Other information

| | |
|--------------------|---|
| Explosives: | Product is not explosive. When using: development of explosive vapour/air mixture possible. |
| Oxidising liquids: | No |
| Solvents content: | 249 g/l (Organic solvents) |

SECTION 10: Stability and reactivity

10.1 Reactivity



Page 11 of 24
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 01.11.2021 / 0005
 Replacing version dated / version: 03.09.2021 / 0004
 Valid from: 01.11.2021
 PDF print date: 01.11.2021
 4F-Sealing 1K-PUR 15 kg
 Art.: 9095825

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

Heating, open flame, ignition sources

Electrostatic charge

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

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

Possibly more information on health effects, see Section 2.1 (classification).

| 4F-Sealing 1K-PUR 15 kg Art.: 9095825 | | | | | | |
|---|----------|-------|---------|----------|-------------|---------------------------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | | | | | | n.d.a. |
| Acute toxicity, by dermal route: | ATE | 9434 | mg/kg | | | calculated value |
| Acute toxicity, by inhalation: | ATE | 35 | mg/l/4h | | | calculated value, Vapours |
| Skin corrosion/irritation: | | | | | | n.d.a. |
| Serious eye damage/irritation: | | | | | | n.d.a. |
| Respiratory or skin sensitisation: | | | | | | n.d.a. |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): | | | | | | n.d.a. |
| Aspiration hazard: | | | | | | Asp. Tox. 1 |
| Symptoms: | | | | | | n.d.a. |

| Reaction mass of ethylbenzene and m-xylene and p-xylene | | | | | | |
|---|----------|-------|------|----------|-------------|-------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| | | | | | | |

®

Page 12 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

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4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | | | | | |
|--------------------------------|------|------|-------|------------------------|---|--------------------------------|
| Acute toxicity, by oral route: | LD50 | 3523 | mg/kg | Rat | Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY) | |
| Acute toxicity, by inhalation: | LC50 | 6350 | ppm | Rat | Regulation (EC) 440/2008 B.2 (ACUTE TOXICITY (INHALATION)) | Vapours |
| Germ cell mutagenicity: | | | | | OECD 478 (Genetic Toxicology - Rodent dominant Lethal Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative, Analogous conclusion |
| Aspiration hazard: | | | | | | Asp. Tox. 1 |

| Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm) | | | | | | |
|--|-----------------|--------------|-------------|-----------------|--|---|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | >5000 | mg/kg | Rat | OECD 425 (Acute Oral Toxicity - Up-and-Down Procedure) | |
| Acute toxicity, by dermal route: | LD50 | >5000 | mg/kg | Rabbit | | |
| Acute toxicity, by inhalation: | LD50 | >6,8 | mg/l/4h | Rat | | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosion) | Not irritant |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosion) | Not irritant, Mechanical irritation possible. |
| Respiratory or skin sensitisation: | | | | Mouse | OECD 429 (Skin Sensitisation - Local Lymph Node Assay) | Not sensitising |
| Respiratory or skin sensitisation: | | | | Guinea pig | OECD 406 (Skin Sensitisation) | No (skin contact) |
| Germ cell mutagenicity: | | | | Mouse | OECD 474 (Mammalian Erythrocyte Micronucleus Test) | Negative |

®

Page 13 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | | | | | |
|---|-------|------|-------------------|-------------------------------|--|---|
| Germ cell mutagenicity: | | | | Mammalia n | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative |
| Germ cell mutagenicity: | | | | Salmonella typhimuri um | (Ames-Test) | Negative |
| Germ cell mutagenicity: | | | | | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) | Negative |
| Germ cell mutagenicity: | | | | | OECD 471 (Bacterial Reverse Mutation Test) | Negative |
| Reproductive toxicity (Developmental toxicity): | | | | Rat | OECD 414 (Prenatal Developmental Toxicity Study) | No indications of such an effect. |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | Not irritant (respiratory tract). |
| Symptoms: | | | | | | mucous membrane irritation, coughing, respiratory distress, drying of the skin. |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | 3500 | mg/kg/d | Rat | | 90d |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEC | 10 | mg/m ³ | Rat | | 90d |

m-tolylidene diisocyanate

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|--------------------------------|----------|-------|-------|----------|-------------|-------|
| Acute toxicity, by oral route: | LD50 | 5800 | mg/kg | Rat | | |

®

Page 14 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | | | | | |
|-----------|--|--|--|--|--|--|
| Symptoms: | | | | | | asthmatic symptoms, breathing difficulties, eyes, reddened, coughing, mucous membrane irritation |
|-----------|--|--|--|--|--|--|

| 4,5-Dichloro-2-octyl-2H-isothiazol-3-one | | | | | | |
|---|----------|-------|---------|------------|--|---------------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | ATE | 567 | mg/kg | | | |
| Acute toxicity, by inhalation: | ATE | 0,16 | mg/l/4h | | | Dust, Mist |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosion) | Corrosive |
| Respiratory or skin sensitisation: | | | | Guinea pig | OECD 406 (Skin Sensitisation) | Skin Sens. 1A |
| Aspiration hazard: | | | | | | No |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | 20 | mg/kg | Rat | | 28d |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | LOAEL | 100 | mg/kg | Rat | | 28d |

| Calcium carbonate | | | | | | |
|----------------------------------|----------|--------|---------|----------|--|-------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | >2000 | mg/kg | Rat | OECD 420 (Acute Oral toxicity - Fixe Dose Procedure) | |
| Acute toxicity, by oral route: | LD50 | > 5000 | mg/kg | Rat | | |
| Acute toxicity, by dermal route: | LD50 | >2000 | mg/kg | Rat | OECD 402 (Acute Dermal Toxicity) | |
| Acute toxicity, by inhalation: | LC50 | >3 | mg/l/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | |



Page 16 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | | | | | | |
|--|--|--|--|--|--|--|---|
| 12.3. Bioaccumulative potential: | | | | | | | n.d.a. |
| 12.4. Mobility in soil: | | | | | | | n.d.a. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | n.d.a. |
| 12.6. Endocrine disrupting properties: | | | | | | | Does not apply to mixtures. |
| 12.7. Other adverse effects: | | | | | | | No information available on other adverse effects on the environment. |

Reaction mass of ethylbenzene and m-xylene and p-xylene

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--|-----------|------|-------|----------|----------|-------------|-------------------------------------|
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| Toxicity to annelids: | NOEC/NOEL | 14d | 16 | mg/kg dw | | | |

Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm)

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--------------------------------------|----------|------|-------|------|---------------------------------|--|--|
| 12.1. Toxicity to fish: | LC50 | 96h | >100 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | LC50 | 48h | >100 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to algae: | EC50 | 72h | 16 | mg/l | Pseudokirchneriella subcapitata | U.S. EPA-600/9-78-018 | |
| 12.2. Persistence and degradability: | | | | | | | Not relevant for inorganic substances. |
| 12.3. Bioaccumulative potential: | BCF | 42d | 9,6 | | | | Not to be expected |



Page 17 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | | | | | | |
|--|-----------|-----|--------|-------|-------------------------|--|-------------------------------------|
| 12.3. Bioaccumulative potential: | BCF | 14d | 19-352 | | | | Oncorhynchus mykiss |
| 12.4. Mobility in soil: | | | | | | | Negative |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| Toxicity to bacteria: | | | >5000 | mg/l | Escherichia coli | | |
| Toxicity to bacteria: | LC0 | 24h | >10000 | mg/l | Pseudomonas fluorescens | | |
| Toxicity to annelids: | NOEC/NOEL | | >1000 | mg/kg | Eisenia foetida | | |
| Water solubility: | | | | | | | Insoluble ^{20°} C |

| 4,5-Dichloro-2-octyl-2H-isothiazol-3-one | | | | | | | |
|--|-----------|------|--------|------|---------------------|-------------|-------------------------------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.2. Persistence and degradability: | | | | | | | Readily biodegradable |
| 12.3. Bioaccumulative potential: | BCF | | 750 | | Lepomis macrochirus | | |
| 12.3. Bioaccumulative potential: | Log Pow | | 2,8 | | | | |
| 12.1. Toxicity to fish: | LC50 | 96h | 0,0078 | mg/l | Oncorhynchus mykiss | | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 0,0097 | mg/l | Daphnia magna | | |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 21d | 0,0004 | mg/l | Daphnia magna | | |
| 12.1. Toxicity to algae: | NOEC/NOEL | 72h | 0,015 | mg/l | | | |
| 12.1. Toxicity to algae: | EC50 | 72h | 0,025 | mg/l | | | |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

| Calcium carbonate | | | | | | | |
|----------------------------|----------|------|-------|------|---------------|--|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to daphnia: | EC50 | 48h | >100 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |



Page 18 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

| | | | | | | | |
|--|------|-----|--------|------|-------------------------|--|---|
| 12.1. Toxicity to algae: | EC50 | 72h | >14 | mg/l | Desmodesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test) | |
| Toxicity to bacteria: | EC50 | 3h | >1000 | mg/l | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) | |
| Toxicity to annelids: | | | | | Eisenia foetida | OECD 207 (Earthworm, Acute Toxicity Tests) | Negative |
| 12.3. Bioaccumulative potential: | | | | | | | Not relevant for inorganic substances. |
| 12.4. Mobility in soil: | | | | | | | Not relevant for inorganic substances. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | Not relevant for inorganic substances. |
| 12.1. Toxicity to fish: | LC50 | 96h | >10000 | mg/l | Oncorhynchus mykiss | | |
| 12.1. Toxicity to fish: | LC50 | 96h | >100 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | >1000 | mg/l | Daphnia magna | | |
| 12.1. Toxicity to algae: | EC50 | 72h | >200 | mg/l | Desmodesmus subspicatus | | |
| 12.2. Persistence and degradability: | | | | | | | Inorganic products cannot be eliminated from water through biological purification methods. |

SECTION 13: Disposal considerations



Page 19 of 24
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 01.11.2021 / 0005
 Replacing version dated / version: 03.09.2021 / 0004
 Valid from: 01.11.2021
 PDF print date: 01.11.2021
 4F-Sealing 1K-PUR 15 kg
 Art.: 9095825

13.1 Waste treatment methods

For the substance / mixture / residual amounts

The waste codes are recommendations based on the scheduled use of this product.
 Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
 08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances
 Recommendation:

Sewage disposal shall be discouraged.
 Pay attention to local and national official regulations.
 E.g. suitable incineration plant.
 E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.
 Empty container completely.
 Uncontaminated packaging can be recycled.
 Dispose of packaging that cannot be cleaned in the same manner as the substance.
 Do not perforate, cut up or weld uncleaned container.
 Residues may present a risk of explosion.

SECTION 14: Transport information

General statements

14.1. UN number or ID number: 1866

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1866 RESIN SOLUTION

14.3. Transport hazard class(es):

3



14.4. Packing group:

III

Classification code:

F1

LQ:

5 L

14.5. Environmental hazards:

Not applicable

Tunnel restriction code:

E

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

RESIN SOLUTION

14.3. Transport hazard class(es):

3



14.4. Packing group:

III

EmS:

F-E, S-E

Marine Pollutant:

n.a

14.5. Environmental hazards:

Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

Resin solution

14.3. Transport hazard class(es):

3



14.4. Packing group:

III

14.5. Environmental hazards:

Not applicable

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.
 All persons involved in transporting must observe safety regulations.
 Precautions must be taken to prevent damage.



Page 20 of 24
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 01.11.2021 / 0005
Replacing version dated / version: 03.09.2021 / 0004
Valid from: 01.11.2021
PDF print date: 01.11.2021
4F-Sealing 1K-PUR 15 kg
Art.: 9095825

14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Regulation (EC) No 1907/2006, Annex XVII

m-tolylidene diisocyanate

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

| Hazard categories | Notes to Annex I | Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements | Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements |
|-------------------|------------------|---|---|
| P5c | | 5000 | 50000 |

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 249 g/l

Treated goods as per Regulation (EU) No. 528/2012 must display specific information on the label.

Please note Article 58 paragraph (3) subparagraph 2 of Regulation (EU) No. 528/2012.

Approval of the biocidal active substance may mean that special conditions are required for marketing the treated goods.

These are indicated in the approval of the active substance.

Observe incident regulations.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 1-16



Page 21 of 24
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 01.11.2021 / 0005
 Replacing version dated / version: 03.09.2021 / 0004
 Valid from: 01.11.2021
 PDF print date: 01.11.2021
 4F-Sealing 1K-PUR 15 kg
 Art.: 9095825

Employee training in handling dangerous goods is required.
 These details refer to the product as it is delivered.
 Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used |
|---|--|
| Flam. Liq. 3, H226 | Classification based on test data. |
| STOT RE 2, H373 | Classification according to calculation procedure. |
| Eye Irrit. 2, H319 | Classification according to calculation procedure. |
| Skin Irrit. 2, H315 | Classification according to calculation procedure. |
| Resp. Sens. 1, H334 | Classification according to calculation procedure. |
| Skin Sens. 1, H317 | Classification according to calculation procedure. |
| Asp. Tox. 1, H304 | Classification according to calculation procedure. |
| Aquatic Chronic 3, H412 | Classification according to calculation procedure. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

- H330 Fatal if inhaled.
- H226 Flammable liquid and vapour.
- H351 Suspected of causing cancer by inhalation.
- H317 May cause an allergic skin reaction.
- H314 Causes severe skin burns and eye damage.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- 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.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH071 Corrosive to the respiratory tract.

- Flam. Liq. — Flammable liquid
- STOT RE — Specific target organ toxicity - repeated exposure
- Eye Irrit. — Eye irritation
- Skin Irrit. — Skin irritation
- Resp. Sens. — Respiratory sensitization
- Skin Sens. — Skin sensitization
- Asp. Tox. — Aspiration hazard
- Aquatic Chronic — Hazardous to the aquatic environment - chronic
- Acute Tox. — Acute toxicity - dermal
- Acute Tox. — Acute toxicity - inhalation
- STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
- Carc. — Carcinogenicity



Page 22 of 24
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 01.11.2021 / 0005
Replacing version dated / version: 03.09.2021 / 0004
Valid from: 01.11.2021
PDF print date: 01.11.2021
4F-Sealing 1K-PUR 15 kg
Art.: 9095825

Acute Tox. — Acute toxicity - oral
Skin Corr. — Skin corrosion
Eye Dam. — Serious eye damage
Aquatic Acute — Hazardous to the aquatic environment - acute

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
Guidelines for the preparation of safety data sheets as amended (ECHA).
Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
Safety data sheets for the constituent substances.
ECHA Homepage - Information about chemicals.
GESTIS Substance Database (Germany).
German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
National Lists of Occupational Exposure Limits for each country as amended.
Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
ATE Acute Toxicity Estimate
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BSEF The International Bromine Council
bw body weight
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC European Community
ECHA European Chemicals Agency



Page 23 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

EC_x, EL_x (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ErC_x, E_μC_x, ErL_x (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
etc. et cetera
EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
K_{oc} Adsorption coefficient of organic carbon in the soil
K_{ow} octanol-water partition coefficient
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
IUPAC International Union for Pure Applied Chemistry
LC50 Lethal Concentration to 50 % of a test population
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
Log K_{oc} Logarithm of adsorption coefficient of organic carbon in the soil
Log K_{ow}, Log P_{ow} Logarithm of octanol-water partition coefficient
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute for Occupational Safety and Health (USA)
NLP No-longer-Polymer
NOEC, NOEL No Observed Effect Concentration/Level
OECD Organisation for Economic Co-operation and Development
org. organic
OSHA Occupational Safety and Health Administration (USA)
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC Polyvinylchloride
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

®

Page 24 of 24

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0005

Replacing version dated / version: 03.09.2021 / 0004

Valid from: 01.11.2021

PDF print date: 01.11.2021

4F-Sealing 1K-PUR 15 kg

Art.: 9095825

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.