



Page 1 of 23
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 17.12.2019 / 0001
Replacing version dated / version: 17.12.2019 / 0001
Valid from: 17.12.2019
PDF print date: 17.12.2019
4F-Sealing 1K-PUR 25 kg
Art.: 9095824

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 25 kg
Art.: 9095824

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)

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 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

Resp. Sens.	1	H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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. 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.

m-tolylidene diisocyanate
4,5-Dichloro-2-octyl-2H-isothiazol-3-one
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
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 %).

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture



Page 3 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

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	905-562-9 (REACH-IT List-No.)
CAS	---
content %	10-<25
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT SE 3, H335 STOT RE 2, H373 (organs of hearing) Aquatic Chronic 3, H412

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Registration number (REACH)	01-2119463258-33-XXXX
Index	---
EINECS, ELINCS, NLP	919-857-5 (REACH-IT List-No.)
CAS	---
content %	0-2,5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336

m-tolyldiene diisocyanate	
Registration number (REACH)	01-2119454791-34-XXXX
Index	615-006-00-4
EINECS, ELINCS, NLP	247-722-4
CAS	26471-62-5
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Carc. 2, H351 Acute Tox. 1, H330 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Chronic 3, H412

4,5-Dichloro-2-octyl-2H-isothiazol-3-one	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	264-843-8
CAS	64359-81-5
content %	0,0025-<0,025



Page 4 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Acute Tox. 2, H330 STOT SE 3, H335 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)
--	---

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.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.

Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

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.

Ingestion:

Nausea



Page 5 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

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

Oxides of nitrogen

Hydrogen cyanide

Toxic gases

Explosive vapour/air or gas/air mixtures.

5.3 Advice for firefighters

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

Keep unprotected persons away.

Ensure sufficient supply of air.

Remove possible causes of ignition - do not smoke.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

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



Page 6 of 23
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 17.12.2019 / 0001
 Replacing version dated / version: 17.12.2019 / 0001
 Valid from: 17.12.2019
 PDF print date: 17.12.2019
 4F-Sealing 1K-PUR 25 kg
 Art.: 9095824

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

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):
 800 mg/m³

	Chemical Name	Reaction mass of ethylbenzene and m-xylene and p-xylene	Content %:10-<25
	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)	---

Ⓒ

Page 7 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

Monitoring procedures:	- Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) 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)
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	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Content %:0-2,5
WEL-TWA: 800 mg/m3	WEL-STEL: ---	---
Monitoring procedures:	- Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174)	
BMGV: ---	Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40)	

Chemical Name	m-tolylidene diisocyanate	Content %:0,1-<1
WEL-TWA: 0,02 mg/m3 (Isocyanates, all (as -NCO))	WEL-STEL: 0,07 mg/m3 (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	Titanium dioxide	Content %:
WEL-TWA: 10 mg/m3 (total inhalable dust), 4 mg/m3 (respirable 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	
	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	

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - oral	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	900	mg/m ³	
Consumer	Human - dermal	Long term, systemic effects	DNEL	125	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	185	mg/m ³	
Consumer	Human - oral	Long term, systemic effects	DNEL	125	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1500	mg/m ³	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	208	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	871	mg/m ³	

Titanium dioxide						
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	



Page 9 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m ³	
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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 (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | 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.

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. BS EN 14042.

BS 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 374).

Recommended

Protective gloves in butyl rubber (EN 374).

Minimum layer thickness in mm:

$\geq 0,5$

Safety gloves made of fluorocarbon rubber (EN 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.



Page 10 of 23
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 17.12.2019 / 0001
Replacing version dated / version: 17.12.2019 / 0001
Valid from: 17.12.2019
PDF print date: 17.12.2019
4F-Sealing 1K-PUR 25 kg
Art.: 9095824

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

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
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	130 °C
Flash point:	27 °C (Xylene)
Evaporation rate:	Not determined
Flammability (solid, gas):	n.a.
Lower explosive limit:	0,8 Vol-%
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	1,39-1,41 g/cm ³ (20°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Not miscible

Ⓒ

Page 11 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	488 °C (Ignition temperature Xylene)
Decomposition temperature:	Not determined
Viscosity:	>90 mPas (20°C)
Explosive properties:	Product is not explosive. When using: development of explosive vapour/air mixture possible.
Oxidising properties:	No
9.2 Other information	
Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

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 toxicological effects

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

4F-Sealing 1K-PUR 25 kg Art.: 9095824						
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.

®

Page 12 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

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4F-Sealing 1K-PUR 25 kg

Art.: 9095824

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
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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LD50	>18,5	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	

®

Page 13 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant, Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative, Analogous conclusion
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness.
Aspiration hazard:						Yes
Symptoms:						unconsciousness, headaches, dizziness, discoloration of the skin, vomiting, diarrhoea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Not to be expected

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 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

Symptoms:						asthmatic symptoms, breathing difficulties, eyes, reddened, coughing, mucous membrane irritation
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4,5-Dichloro-2-octyl-2H-isothiazol-3-one						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1636	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	0,26	mg/l/4h	Rat		Mist
Respiratory or skin sensitisation:				Guinea pig		Sensitising (skin contact)
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

Titanium dioxide						
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.



Page 16 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

12.2. Persistence and degradability:							n.d.a.
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. Other adverse effects:							n.d.a.

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			

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOELR	28d	0,13	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.3. Bioaccumulative potential:			5-6,7				High
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to algae:	ErC50	72h	>1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EbC50	72h	>1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	



Page 17 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

12.1. Toxicity to algae:	NOELR	72h	100	mg/l	Raphidocelis subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	80	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.1. Toxicity to algae:	NOELR	72h	3	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

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

Titanium dioxide							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes



Page 18 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

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	
12.3. Bioaccumulative potential:	BCF	14d	19-352				Oncorhynchus mykiss
12.3. Bioaccumulative potential:	BCF	42d	9,6				No
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

SECTION 13: Disposal considerations

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.



Page 19 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

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: 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.

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

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 maternity protection (national implementation of the Directive 92/85/EEC)!

Comply with trade association/occupational health regulations.



Page 20 of 23
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 17.12.2019 / 0001
Replacing version dated / version: 17.12.2019 / 0001
Valid from: 17.12.2019
PDF print date: 17.12.2019
4F-Sealing 1K-PUR 25 kg
Art.: 9095824

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: n.a.

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.
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.



Page 21 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

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.

Flam. Liq. — Flammable liquid

STOT RE — Specific target organ toxicity - repeated exposure

Eye Irrit. — Eye irritation

Skin Irrit. — Skin irritation

Resp. Sens. — Respiratory 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

STOT SE — Specific target organ toxicity - single exposure - narcotic effects

Carc. — Carcinogenicity

Skin Sens. — Skin sensitization

Acute Tox. — Acute toxicity - oral

Skin Corr. — Skin corrosion

Eye Dam. — Serious eye damage

Aquatic Acute — Hazardous to the aquatic environment - acute

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)

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)



Page 22 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

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

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community

ECHA European Chemicals Agency

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)

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

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

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

OECD Organisation for Economic Co-operation and Development

org. organic

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.

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Page 23 of 23

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

Revision date / version: 17.12.2019 / 0001

Replacing version dated / version: 17.12.2019 / 0001

Valid from: 17.12.2019

PDF print date: 17.12.2019

4F-Sealing 1K-PUR 25 kg

Art.: 9095824

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

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.