

Safety data sheet
according to 1907/2006/EC

Printing date 18.08.2015

Version number 1

Revision: 18.08.2015

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

- **1.1 Product identifier**
- Trade name **BETALINK™ K1**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Sealant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Supplier:
R-LOGISTICS GmbH
Daimlerstr. 21
74252 Massenbachhausen
- Manufacturer:
DOW Deutschland Anlagengesellschaft mbH
Am Kronberger Hang 4
65824 Schwalbach
- **Informing department:**
(31) 115 67 2626
SDSQuestion@dow.com
- **1.4 Emergency telephone number:** 0049 4146 91 2333

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

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

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- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
 - **Hazard pictograms** GHS08
 - **Signal word** Danger
 - **Hazard-determining components of labelling:**
diphenylmethane-4,4'-di-isocyanate
 - **Hazard statements**
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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- **Precautionary statements**

P285 In case of inadequate ventilation wear respiratory protection.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

EUH204 Contains isocyanates. May produce an allergic reaction.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119486136-32	xylene, mixed isomers, pure Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%
CAS: 90622-57-4 EINECS: 292-459-0 Reg.nr.: 01-2119471991-29	Isoparaffinischer Kohlenwasserstoff Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 4, H413	2.5-10%
CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47	diphenylmethane-4,4'-di-isocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	< 0.5%
CAS: 85099-51-0 ELINCS: 400-580-9	Dodecyl-3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3.20-diazadispiro(5,1,11,2)hencosan-20-yl)propionat Aquatic Chronic 2, H411; Skin Irrit. 2, H315	< 0.5%

- **SVHC** The product contains no substances named in the SVHC candidate list.

- **Additional information** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information**

Personal protection for the First Aider.

Instantly remove any clothing soiled by the product.

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- **After inhalation**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact** Clean with water and soap. If possible, also wash with polyethylene glycol 400.
- **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing**
Do not induce vomiting; instantly call for medical help.
Seek medical treatment.
- **4.2 Most important symptoms and effects, both acute and delayed**
Asthma attacks
Allergic reactions
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained breathing apparatus.
Wear full protective suit.
- **Additional information**
Cool endangered containers with water spray jet.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Use breathing protection against the effects of fumes/dust/aerosol.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Dispose of contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.

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See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
- **Storage class** 11
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**

- **Components with critical values that require monitoring at the workplace:**

1330-20-7 xylene, mixed isomers, pure

WEL (Great Britain)	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
IOELV (EU)	Short-term value: 442 mg/m ³ , 100 ppm Long-term value: 221 mg/m ³ , 50 ppm Skin

101-68-8 diphenylmethane-4,4'-di-isocyanate

WEL (Great Britain)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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- **DNELs**

1330-20-7 xylene, mixed isomers, pure

Oral	DNEL	1.6 mg/kg bw/day (consumer, systemic, long term)
Dermal	DNEL	180 mg/kg bw/day (worker, systemic, long term) 108 mg/kg bw/day (consumer, systemic, long term)
Inhalative	DNEL	289 mg/m ³ (worker, systemic, short term) 77 mg/m ³ (worker, systemic, long term) 174 mg/m ³ (consumer, local, short term)

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		174 mg/m ³ (consumer, systemic, short term) 14.8 mg/m ³ (consumer, systemic, long term)
100-41-4 ethylbenzene		
Oral	DNEL	1.6 mg/kg bw/day (consumer, systemic, long term)
Dermal	DNEL	180 mg/kg bw/day (worker, systemic, long term)
Inhalative	DNEL	293 mg/m ³ (worker, local, short term) 77 mg/m ³ (worker, systemic, long term) 15 mg/m ³ (consumer, systemic, long term)
101-68-8 diphenylmethane-4,4'-di-isocyanate		
Dermal	DNEL	28.7 mg/kg bw/day (worker, local, short term) 50 mg/kg bw/day (worker, systemic, short term)
Inhalative	DNEL	0.1 mg/m ³ (worker, local, short term) 0.05 mg/m ³ (worker, local, long term) 0.1 mg/m ³ (worker, systemic, short term) 0.05 mg/m ³ (worker, systemic, long term)
· PNECs		
1330-20-7 xylene, mixed isomers, pure		
PNEC		0.327 mg/l (fresh water) 0.327 mg/l (salt water) 0.327 mg/l (sporadic release) 6.58 mg/l (sewage plant (STP)) 12.46 mg/kg dwt (fresh water sediment) 12.46 mg/kg dwt (salt water sediment) 2.31 mg/kg dwt (soil)
100-41-4 ethylbenzene		
PNEC		0.1 mg/l (fresh water) 0.01 mg/l (salt water) 0.1 mg/l (sporadic release) 9.6 mg/l (sewage plant (STP)) 13.7 mg/kg dwt (fresh water sediment) 1.37 mg/kg dwt (salt water sediment) 2.68 mg/kg dwt (soil)
101-68-8 diphenylmethane-4,4'-di-isocyanate		
PNEC		> 1 mg/l (fresh water) > 0.1 mg/l (salt water) > 1 mg/l (sewage plant (STP)) > 1 mg/kg dwt (soil)

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· **Ingredients with biological limit values:**

1330-20-7 xylene, mixed isomers, pure

BMGV (Great Britain)	650 mmol/mol creatinine
	Medium: urine
	Sampling time: post shift
	Parameter: methyl hippuric acid

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Do not eat, drink or smoke while working.

Keep away from foodstuffs, beverages and food.

Wash hands during breaks and at the end of the work.

· **Breathing equipment:**



Use breathing protection in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves.

· **Material of gloves**

We recommend:

Nitril / Neopren ; strength >0,55 mm

naturelatex; strength > 1,0 mm

e.g. Sol-Vex 37-185; Emperor ME 104

(breakdown time >180 min)

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed safety glasses.

· **Body protection:**



Protective work clothing.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Pasty
Colour:	Black
Smell:	Solvent-like
Odour threshold:	Not determined.

· **pH-value:** Not applicable.

· Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined

· Flash point

(ISO 3679 / ISO 3680; SETA CLOSED CUP): Not applicable

· **Inflammability (solid, gaseous)** Not determined.

· **Ignition temperature:** > 200 °C
 · **Decomposition temperature:** Not determined.

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· Critical values for explosion:

Lower:	0.4 Vol %
Upper:	7.6 Vol %

· **Steam pressure at 20 °C:** 29 hPa

· **Density (DIN 51757) at 20 °C:** 1.17 g/cm³
 · **Relative density** Not determined.
 · **Vapour density** Not applicable.
 · **Evaporation rate** Not applicable.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

· **Partition coefficient (n-octanol/water):** Not determined.

· Viscosity:

dynamic: Not applicable.
kinematic: Not applicable.

· **9.2 Other information** No further relevant information available.

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SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Oxidizers, Acids
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values that are relevant for classification:**

1330-20-7 xylene, mixed isomers, pure

Oral	LD50	3500 mg/kg (rat)
Dermal	LD50	15354 mg/kg (rabbit)
Inhalative	LC50/4 h	6350 mg/l (rat)

90622-57-4 Isoparafinischer Kohlenwasserstoff

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 5000 mg/kg (rabbit)

100-41-4 ethylbenzene

Oral	LD50	3500 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rabbit)
Inhalative	LC50/4 h	1.5 mg/l (ATE)

101-68-8 diphenylmethane-4,4'-di-isocyanate

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	> 9400 mg/kg (rabbit)
Inhalative	LC50/4 h	1.5 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** No irritant effect.
- **Respiratory or skin sensitisation** Sensitization possible by inhalation.
- **Additional toxicological information:** Harmful

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

1330-20-7 xylene, mixed isomers, pure

EC50	3.82 mg/l (daphniae)
	4.7 mg/l (algae)
	> 175 mg/l (bacteriae)
LC50	7.6 mg/l (fish)
	< 100 mg/l (algae)
	< 10 mg/l (bacteriae)

100-41-4 ethylbenzene

EC50	1.8-2.9 mg/l (daphniae) (48 h; <i>Daphnaia magna</i>)
IC50	4.6 mg/l (algae) (72 h, <i>Selenastrum capricornutum</i>)
LC50	94.44 mg/l (fish) (96 h; <i>Carassius auratus</i>)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· Additional ecological information:

· **AOX-indication:** not relevant

· **According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC:**

none

· General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

No complications regarding the degrading activities of the activated sludge are to be expected as long as low concentrations are discharged correctly into adapted biological treatment plants.

· 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **European waste catalogue**
The waste key numbers from EWC, is sector and process-specific implement .
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|-------------------|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | No dangerous good |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | No dangerous good |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | No dangerous good |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | No dangerous good |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: | No |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| <ul style="list-style-type: none"> · UN "Model Regulation": | - |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2004/42/EC of the European Parliament and of the Council of 21 April 2004 / Part II 2010**
The 2004/42/EG does not apply for this product.
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**
diphenylmethane-4,4'-di-isocyanate
- **Hazard statements**
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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- **Precautionary statements**

P285 In case of inadequate ventilation wear respiratory protection.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5.000 t

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50.000 t

- **National regulations** Control of Substances Hazardous to Health (COSHH)

- **Information about limitation of use:** none

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The REACH registration numbers given in chapter 1 (for substances) or chapter 3 (for formulations) are given to our present knowledge resulting from the information provided by our suppliers.

- **Relevant phrases**

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

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*PNEC: Predicted No-Effect Concentration (REACH)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**Flam. Liq. 3: Flammable liquids, Hazard Category 3**Acute Tox. 4: Acute toxicity, Hazard Category 4**Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2**Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2**Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Carc. 2: Carcinogenicity, Hazard Category 2**STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3**STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2**Asp. Tox. 1: Aspiration hazard, Hazard Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2**Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4*

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