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

Revision date / version: 09.10.2019 / 0005

Replacing version dated / version: 22.08.2018 / 0004

Valid from: 09.10.2019 PDF print date: 09.10.2019 Membrane Adhesive K 290 ml

Art.: 9081355

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

Membrane Adhesive K 290 ml

Art.: 9081355

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

Relevant identified uses of the substance or mixture:

Seam sealant

Sector of use [SU]:

SU 0 - Other

SU 1 - Agriculture, forestry, fishery

SU19 - Building and construction work

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:

PC 1 - Adhesives, sealants

Process category [PROC]:

PROC19 - Manual activities involving hand contact

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

(GB)

BTI Befestigungstechnik GmbH & Co. KG, Salzstr. 51, 74653 Ingelfingen, Germany

Phone: +49 7940 141 141, Fax: +49 7940 141 9141

info@bti.de, 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

Skin Sens. 1 H317-May cause an allergic skin reaction.

2.2 Label elements

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





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H317-May cause an allergic skin reaction.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P261-Avoid breathing dust. P280-Wear protective gloves.

P333+P313-If skin irritation or rash occurs: Get medical advice / attention.

P501-Dispose of contents / container to an approved waste disposal facility.

Dioctylbis(pentane-2,4-dionato-O,O')tin N-(3-(trimethoxysilyl)propyl)ethylenediamine N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine

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

| Trimethoxyvinylsilane | |
|---|-----------------------|
| Registration number (REACH) | 01-2119513215-52-XXXX |
| Index | |
| EINECS, ELINCS, NLP | 220-449-8 |
| CAS | 2768-02-7 |
| content % | 1-5 |
| Classification according to Regulation (EC) 1272/2008 | Flam. Liq. 3, H226 |
| (CLP) | Acute Tox. 4, H332 |

| Dioctylbis(pentane-2,4-dionato-O,O')tin | Substance with specific conc. limit(s) acc. to |
|---|--|
| | REACh-registration |
| Registration number (REACH) | 01-0000020199-67-XXXX |
| Index | |
| EINECS, ELINCS, NLP | 483-270-6 |





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| CAS | 54068-28-9 |
|---|---------------------------------------|
| content % | 0,1-<1 |
| Classification according to Regulation (EC) 1272/2008 | STOT SE 2, H371(immune system) (oral) |
| (CLP) | Skin Sens. 1, H317 |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine | |
|---|-----------------------|
| Registration number (REACH) | 01-2119970215-39-XXXX |
| Index | |
| EINECS, ELINCS, NLP | 217-164-6 |
| CAS | 1760-24-3 |
| content % | 0,1-<1 |
| Classification according to Regulation (EC) 1272/2008 | Acute Tox. 4, H332 |
| (CLP) | Skin Sens. 1, H317 |
| | Eye Dam. 1, H318 |

| N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine | |
|---|-----------------------|
| Registration number (REACH) | 01-2119963926-21-XXXX |
| Index | |
| EINECS, ELINCS, NLP | 221-336-6 |
| CAS | 3069-29-2 |
| content % | 0,1-<1 |
| Classification according to Regulation (EC) 1272/2008 | Eye Dam. 1, H318 |
| (CLP) | Skin Sens. 1A, H317 |
| | Skin Irrit. 2, H315 |

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

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.

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.

Eve contact

Remove contact lenses.

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

Ingestion

Rinse the mouth thoroughly with water.

Consult doctor immediately - keep Data Sheet available.

4.2 Most important symptoms and effects, both acute and delayed





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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.

The following may occur:

Allergic reaction

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Adapt to the nature and extent of fire.

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Toxic gases

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.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

Prevent from entering drainage system.

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

6.3 Methods and material for containment and cleaning up

Pick up mechanically and dispose of according to Section 13.

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.

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

Observe directions on label and instructions for use.





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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.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Protect against moisture and store closed.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Chemical Name | Dioctylbis(per | ntane-2,4-dionat | o-O,O')tin | | | Content %:0,1-<1 |
|---|----------------|-------------------|--------------------------------|--------------------|--------|------------------|
| WEL-TWA: 0,1 mg/m3 (S | n) (tin | WEL-STEL: | 0,2 mg/m ² | 3 (Sn) (tin | | |
| compounds, organic) | | compounds, o | rganic) | | | |
| Monitoring procedures: | - | | | | | |
| BMGV: | | | | Other information: | : Sk (| Sn) (tin |
| | | | | compounds, organ | ic) | |
| | | | | | | |
| © Chemical Name | Methanol | | | | | Content %: |
| WEL-TWA: 200 ppm (266 | 5 mg/m3) | WEL-STEL: | 250 ppm | (333 mg/m3 | | |
| (WEL), 200 ppm (260 mg/m | | (WEL) | | | | |
| Monitoring procedures: | | Compur - KITA | | | | |
| | | Compur - KITA | | | | |
| - Draeger - Alcohol 25/a Methanol (81 01 631) | | | | | | |
| | | | | emische 6), DFG (E | | |
| | (| 5) - 1998, 2002 - | EU project | t BC/CEN/ENTR/0 | 00/200 | 2-16 card 65- |
| | | 1 (2004) | | | | |
| | - I | Draeger - Alcoh | ol 100/a (C | H 29 701) | | |
| BMGV: | | | | Other information: | Sk (| WEL, EU) |
| © Chemical Name | Diisononyl ph | thalate | | | | Content %: |
| WEL-TWA: 5 mg/m3 | * 1 | WEL-STEL: | | | | |
| Monitoring procedures: | - | | | | | |
| BMGV: | | | | Other information: | | |
| © Chemical Name | Calcium carbo | onate | | | | Content %: |
| WEL-TWA: 4 mg/m3 (res | pirable dust), | WEL-STEL: | | | | |
| 10 mg/m3 (total inhalable du | ist) | | | | | |
| Monitoring procedures: | - | | | | | |
| BMGV: | | | | Other information: | : | |

Trimethoxyvinylsilane





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| Area of application | Exposure route / Environmental compartment | Effect on health | Descript or | Value | Unit | Note |
|---------------------|--|------------------|----------------|-------|------|---|
| | Environment - freshwater | | PNEC | 0,4 | mg/l | Für entsprec hendes Silantrio l (Hydrol ysprodu kt) ermittelt |
| | Environment - marine | | PNEC | 0,04 | mg/l | Für entsprec hendes Silantrio l (Hydrol ysprodu kt) ermittelt |
| | Environment - water, sporadic (intermittent) release | | PNEC | 2,4 | mg/l | Für entsprec hendes Silantrio l (Hydrol ysprodu kt) ermittelt |
| | Environment - sewage treatment plant | | PNEC | 6,6 | mg/l | Für entsprec hendes Silantrio l (Hydrol ysprodu kt) ermittelt |





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| | Environment - sediment, freshwater | | PNEC | 1,5 | mg/kg dw | Für entsprec hendes Silantrio l (Hydrol ysprodu kt) ermittelt |
|---------------------|---------------------------------------|--------------------------------|------|------|-----------------|---|
| | Environment - sediment, marine | | PNEC | 0,15 | mg/kg dw | Für entsprec hendes Silantrio l (Hydrol ysprodu kt) ermittelt |
| | Environment - soil | | PNEC | 0,06 | mg/kg dw | Für entsprec hendes Silantrio l (Hydrol ysprodu kt) ermittelt |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 7,8 | mg/kg bw/day | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 6,7 | mg/m3 | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 0,3 | mg/kg bw/day | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 3,9 | mg/kg bw/day | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 27,6 | mg/m3 | |

| Dioctylbis(pentane-2,4-dionato-O,O')tin | | | | | | | |
|---|------------------------|------------------|----------|-------|-------|------|--|
| Area of application | Exposure route / | Effect on health | Descript | Value | Unit | Note | |
| | Environmental | | or | | | | |
| | compartment | | | | | | |
| | Environment - | | PNEC | 260 | μg/l | | |
| | sporadic | | | | | | |
| | (intermittent) release | | | | | | |
| Workers / employees | Human - dermal | Long term, | DNEL | 0,07 | mg/kg | | |
| | | systemic effects | | | bw/d | | |





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| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 0,091 | mg/m3 |
|---------------------|--------------------|---------------------------------|------|-------|-------|
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 84 | mg/m3 |
| Workers / employees | Human - inhalation | Short term, local effects | DNEL | 0,091 | mg/m3 |
| Workers / employees | Human - inhalation | Short term, systemic effects | DNEL | 84 | mg/m3 |

| N-(3-(trimethoxysilyl) | propyl)ethylenediamine | | | | | |
|------------------------|--|---------------------------------|----------------|------------|------------------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descript or | Value | Unit | Note |
| | Environment - freshwater | | PNEC | 0,062 | mg/l | |
| | Environment - marine | | PNEC | 0,006 2 | mg/l | |
| | Environment - water, sporadic (intermittent) release | | PNEC | 0,62 | mg/l | |
| | Environment - sediment, freshwater | | PNEC | 0,22 | mg/kg dry weight | |
| | Environment - sediment, marine | | PNEC | 0,022 | mg/kg dry weight | |
| | Environment - soil | | PNEC | 0,008 5 | mg/kg dry weight | |
| | Environment - sewage treatment plant | | PNEC | 25 | mg/l | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 8,7 | mg/m3 | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 2,5 | mg/kg bw/day | |
| Consumer | Human - dermal | Short term, systemic effects | DNEL | 17 | mg/kg bw/day | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 35,3 | mg/m3 | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 5 | mg/kg bw/day | |
| Workers / employees | Human - dermal | Short term, systemic effects | DNEL | 5 | mg/kg bw/day | |

| Methanol | | | | | | |
|---------------------|------------------|------------------|----------|-------|------|------|
| Area of application | Exposure route / | Effect on health | Descript | Value | Unit | Note |
| | Environmental | | or | | | |
| | compartment | | | | | |





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| | Environment - | | PNEC | 154 | mg/l |
|---------------------|------------------------|-----------------------------|-------|-------|-------------|
| | freshwater | | DNIEG | 15.4 | /1 |
| | Environment - marine | | PNEC | 15,4 | mg/l |
| | Environment - | | PNEC | 570,4 | mg/kg |
| | sediment, freshwater | | DNIEC | 57.04 | И |
| | Environment - | | PNEC | 57,04 | mg/kg |
| | sediment, marine | | DVIEG | 22.5 | 4 |
| | Environment - soil | | PNEC | 23,5 | mg/kg |
| | Environment - water, | | PNEC | 1540 | mg/l |
| | sporadic | | | | |
| | (intermittent) release | | DVIEG | 100 | 7 |
| | Environment - | | PNEC | 100 | mg/l |
| | sewage treatment | | | | |
| | plant | | | | |
| | Environment - | | PNEC | 20,8 | mg/l |
| | freshwater | | | | |
| | Environment - marine | | PNEC | 2,08 | mg/l |
| | Environment - | | PNEC | 77 | mg/kg |
| | sediment | | | | |
| | Environment - | | PNEC | 7,7 | mg/kg |
| | sediment | | | | |
| Consumer | Human - inhalation | Short term, local effects | DNEL | 50 | mg/m3 |
| Consumer | Human - inhalation | Long term, local | DNEL | 50 | mg/m3 |
| Consumer | Tumum mmunum | effects | DIVEE | | mg/ms |
| Consumer | Human - dermal | Short term, | DNEL | 8 | mg/kg |
| Consumer | Traman derman | systemic effects | DIVLL | | body |
| | | systemic cricets | | | weight/d |
| | | | | | ay |
| Consumer | Human - inhalation | Short term, | DNEL | 50 | mg/m3 |
| Consumer | Truman - mnaiation | systemic effects | DNEL | 30 | mg/m3 |
| Consumer | Human - oral | Short term, | DNEL | 8 | mg/kg |
| Consumer | Truman - Orai | 1 ' | DNEL | 0 | |
| | | systemic effects | | | body |
| | | | | | weight/d |
| <u> </u> | TT 1 1 | T | DAIDI | 0 | ay |
| Consumer | Human - dermal | Long term, | DNEL | 8 | mg/kg |
| | | systemic effects | | | body |
| | | | | | weight/d |
| ~ | | - | DITE | | ay |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 50 | mg/m3 |
| Consumer | Human - oral | Long term, | DNEL | 8 | mg/kg |
| | | systemic effects | | | body |
| | | | | | weight/d |
| | | | | | ay |
| Workers / employees | Human - dermal | Short term, | DNEL | 40 | mg/kg |
| r | | systemic effects | | | body |
| | | | | | weight/d |
| | | 1 | 1 | 1 | 1 |
| | | | | | av |
| Workers / employees | Human - inhalation | Short term, | DNEL | 260 | ay mg/m3 |





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| Workers / employees | Human - inhalation | Short term, local effects | DNEL | 260 | mg/m3 | |
|---------------------|--------------------|--------------------------------|------|-----|---------------------------------|--|
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 40 | mg/kg body weight/d ay | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 260 | mg/m3 | |
| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 260 | mg/m3 | |

| Diisononyl phthalate | | | | | | |
|----------------------|--------------------|------------------|----------|-------|-------|------|
| Area of application | Exposure route / | Effect on health | Descript | Value | Unit | Note |
| | Environmental | | or | | | |
| | compartment | | | | | |
| | Environment - soil | | PNEC | 30 | mg/kg | |
| | Environment - oral | | PNEC | 150 | mg/kg | |
| | (animal feed) | | | | | |
| Consumer | Human - inhalation | Long term, | DNEL | 15,3 | mg/m3 | |
| | | systemic effects | | | | |
| Consumer | Human - dermal | Long term, | DNEL | 220 | mg/kg | |
| | | systemic effects | | | | |
| Consumer | Human - oral | Long term, | DNEL | 4,4 | mg/kg | |
| | | systemic effects | | | | |
| Workers / employees | Human - dermal | Long term, | DNEL | 366 | mg/kg | |
| | | systemic effects | | | | |
| Workers / employees | Human - inhalation | Long term, local | DNEL | 51,72 | mg/m3 | |
| | | effects | | | | |

| Calcium carbonate | | | | | | |
|---------------------|--------------------------------|-----------------------------|----------|-------|-------|------|
| Area of application | Exposure route / | Effect on health | Descript | Value | Unit | Note |
| | Environmental | | or | | | |
| | compartment | | | | | |
| | Environment - sewage treatment | | PNEC | 100 | mg/l | |
| | plant | | | | | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 10 | mg/m3 | |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 1,06 | mg/m3 | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 10 | mg/m3 | |
| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 4,26 | 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 (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU).





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(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:

With danger of contact with eyes.

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

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

If applicable

Safety gloves made of butyl (EN 374)

Protective Neoprene® / polychloroprene gloves (EN 374).

Protective nitrile gloves (EN 374).

Minimum layer thickness in mm:

0.4

Permeation time (penetration time) in minutes:

> 480

Protective hand cream recommended.

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.

Skin protection - Other:

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

Respiratory protection:

Normally not necessary.





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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: Paste, solid.
Colour: Black
Odour: Characteristic
Odour threshold: Not determined

pH-value: n.a.

Melting point/freezing point: Not determined Initial boiling point and boiling range: Not determined Flash point: Not determined Evaporation rate: Not determined Flammability (solid, gas): Not determined Lower explosive limit: Not determined Upper explosive limit: Not determined Vapour pressure: Not determined Vapour density (air = 1): Not determined Density: 1,58 g/ml Bulk density: Not determined Solubility(ies): Not determined Water solubility: Insoluble

Partition coefficient (n-octanol/water):

Auto-ignition temperature:

Not determined
420 °C (Ignition temperature)

Decomposition temperature: Not determined

Viscosity: n.

Explosive properties: Product is not explosive.

Oxidising properties: No

9.2 Other information

Miscibility: Not determined
Fat solubility / solvent: Not determined
Conductivity: Not determined





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Art.: 9081355

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

None known

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).

| Membrane Adhesive K 290 ml | | | | | | | |
|---|--------|-------|---------|----------|-------------|---------------------------|--|
| Art.: 9081355 Toxicity / effect | Endpoi | Value | Unit | Organism | Test method | Notes | |
| · | nt | | | Ü | | | |
| Acute toxicity, by oral route: | | | | | | n.d.a. | |
| Acute toxicity, by dermal route: | | | | | | n.d.a. | |
| Acute toxicity, by inhalation: | ATE | >20 | mg/l/4h | | | calculated value, Vapours | |
| Acute toxicity, by inhalation: | ATE | >5 | mg/l/4h | | | calculated value, Dus | |
| 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. | |





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| Aspiration hazard: | | | n.d.a. |
|--------------------|--|--|--------|
| Symptoms: | | | n.d.a. |

| Trimethoxyvinylsilane Toxicity / effect | Endpoi | Value | Unit | Organism | Test method | Notes |
|---|--------|-------|---------|------------|--|----------------------|
| Tometty / circet | nt | varue | | Organism | 1 cst method | 11000 |
| Acute toxicity, by oral route: | LD50 | 7120 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | |
| Acute toxicity, by dermal route: | LD50 | 3200 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | |
| Acute toxicity, by inhalation: | LD50 | 2773 | ppm/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | Aerosol |
| Acute toxicity, by inhalation: | LC50 | 16,8 | mg/l/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | Vapours |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosio n) | Slightly irritant |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosio n) | 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 |
| Germ cell mutagenicity: | | | | | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) | Negative |
| Carcinogenicity: | | | | | , | Negative |
| Reproductive toxicity: | NOAEL | 1000 | mg/kg | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Dev elopm. Tox. Screening Test) | Negative |
| Specific target organ toxicity - repeated exposure (STOT-RE): | NOAEL | 10 | mg/l | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Dev elopm. Tox. Screening Test) | Vapours |





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| Symptoms: | | | drowsiness, dizziness, |
|-----------|--|--|---------------------------|
| | | | nausea, |
| | | | abdominal |
| | | | pain, |
| | | | breathing |
| | | | difficulties, |
| | | | visual |
| | | | disturbances |

| Dioctylbis(pentane-2,4-d | ionato-O,C |)')tin | | | | |
|----------------------------|------------|--------|-------|----------|------------------|--------------|
| Toxicity / effect | Endpoi | Value | Unit | Organism | Test method | Notes |
| | nt | | | | | |
| Acute toxicity, by oral | LD50 | 2500 | mg/kg | Rat | | |
| route: | | | | | | |
| Acute toxicity, by | LD50 | >2000 | mg/kg | Rat | OECD 402 (Acute | |
| dermal route: | | | | | Dermal Toxicity) | |
| Skin corrosion/irritation: | | | | | | Not irritant |
| Serious eye | | | | | | Not irritant |
| damage/irritation: | | | | | | |
| Respiratory or skin | | >5 | % | Mouse | OECD 429 (Skin | Sensitising |
| sensitisation: | | | | | Sensitisation - | (skin |
| | | | | | Local Lymph | contact) |
| | | | | | Node Assay) | |

| N-(3-(trimethoxysilyl)pr | opyl)ethyle | enediamine | | | | |
|----------------------------|-------------|-------------|---------|----------|---------------------|--------------|
| Toxicity / effect | Endpoi | Value | Unit | Organism | Test method | Notes |
| | nt | | | | | |
| Acute toxicity, by oral | LD50 | >2000 | mg/kg | Rat | | |
| route: | | | | | | |
| Acute toxicity, by | LD50 | >2000 | mg/kg | Rabbit | | |
| dermal route: | | | | | | |
| Acute toxicity, by | LC50 | 1,49 - 2,44 | mg/l/4h | Rat | | Aerosol |
| inhalation: | | | | | | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute | Not irritant |
| | | | | | Dermal | |
| | | | | | Irritation/Corrosio | |
| | | | | | n) | |
| Serious eye | | | | Rabbit | OECD 405 (Acute | Risk of |
| damage/irritation: | | | | | Eye | serious |
| | | | | | Irritation/Corrosio | damage to |
| | | | | | n) | eyes. |
| Respiratory or skin | | | | Rabbit | OECD 406 (Skin | Sensitising |
| sensitisation: | | | | | Sensitisation) | |
| Germ cell mutagenicity: | | | | | OECD 471 | Negative |
| | | | | | (Bacterial Reverse | |
| | | | | | Mutation Test) | |





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| Reproductive toxicity (Effects on fertility): | NOAEL | >=500 | mg/kg bw/d | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Dev elopm. Tox. Screening Test) | |
|--|-------|--------|---------------|-----|--|--|
| Symptoms: | | | | | | respiratory distress, abdominal pain, unconsciousn ess, vomiting, coughing, headaches, mucous membrane irritation, dizziness |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | >=500 | mg/kg bw/d | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Dev elopm. Tox. Screening Test) | |
| Specific target organ toxicity - repeated exposure (STOT-RE), dermal: | NOAEL | >=1545 | mg/kg bw/d | Rat | 5 | |

| Methanol | | | | | | |
|-------------------------|--------|-------|---------|----------|-------------|----------------|
| Toxicity / effect | Endpoi | Value | Unit | Organism | Test method | Notes |
| | nt | | | | | |
| Acute toxicity, by oral | ATE | 300 | mg/kg | Human | | Experiences |
| route: | | | | being | | on persons. |
| Acute toxicity, by | LD50 | 17100 | mg/kg | Rabbit | | Does not |
| dermal route: | | | | | | conform |
| | | | | | | with EU |
| | | | | | | classification |
| | | | | | | |
| Acute toxicity, by | LC50 | 85 | mg/l/4h | Rat | | Not relevant |
| inhalation: | | | | | | for |
| | | | | | | classification |
| | | | | | | ., Vapours |





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| Serious eye | Rabbit | OECD 405 (Acute | Mild irritant |
|-------------------------|------------|---------------------|----------------|
| damage/irritation: | | Eye | |
| | | Irritation/Corrosio | |
| | | n) | |
| Respiratory or skin | Guinea pig | | No (skin |
| sensitisation: | | Sensitisation) | contact) |
| Germ cell mutagenicity: | | OECD 471 | Negative |
| | | (Bacterial Reverse | |
| | | Mutation Test) | |
| Symptoms: | | | abdominal |
| | | | pain, |
| | | | vomiting, |
| | | | headaches, |
| | | | gastrointestin |
| | | | al |
| | | | disturbances, |
| | | | drowsiness, |
| | | | visual |
| | | | disturbances, |
| | | | watering |
| | | | eyes, |
| | | | nausea, |
| | | | mental |
| | | | confusion |

| Diisononyl phthalate | | | | | | | | | | |
|------------------------------------|--------|--------|---------|---------------|--|-----------------------------------|--|--|--|--|
| Toxicity / effect | Endpoi | Value | Unit | Organism | Test method | Notes | | | | |
| | nt | | | | | | | | | |
| Acute toxicity, by oral route: | LD50 | >10000 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | | | | | |
| Acute toxicity, by dermal route: | LD50 | >3160 | mg/kg | Rabbit | | | | | | |
| Acute toxicity, by inhalation: | LC50 | >4,4 | mg/l/4h | Rat | | Aerosol | | | | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosio n) | Not irritant | | | | |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosio n) | Not irritant | | | | |
| Respiratory or skin sensitisation: | | | | | | Not sensitizising | | | | |
| Germ cell mutagenicity: | | | | Mammalia n | | No indications of such an effect. | | | | |





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| Carcinogenicity: | | No |
|------------------------|--|-------------|
| | | indications |
| | | of such an |
| | | effect. |
| Reproductive toxicity: | | No |
| | | indications |
| | | of such an |
| | | effect. |
| Specific target organ | | No |
| toxicity - single | | indications |
| exposure (STOT-SE): | | of such an |
| | | effect. |
| Symptoms: | | diarrhoea, |
| | | nausea and |
| | | vomiting. |

| Calcium carbonate | T 1 . | X7 1 | TT *4 | | TD 4 41 1 | N T 4 |
|----------------------------|--------------|-------|---------|----------|---------------------|---------------|
| Toxicity / effect | Endpoi nt | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral | LD50 | >2000 | mg/kg | Rat | OECD 420 (Acute | |
| route: | LDSO | 2000 | Ing, ng | Tut | Oral toxicity - | |
| 10400 | | | | | Fixe Dose | |
| | | | | | Procedure) | |
| Acute toxicity, by | LD50 | >2000 | mg/kg | Rat | OECD 402 (Acute | |
| dermal route: | | | | | Dermal Toxicity) | |
| Acute toxicity, by | LC50 | >3 | mg/l/4h | Rat | OECD 403 (Acute | |
| inhalation: | | | | | Inhalation | |
| | | | | | Toxicity) | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute | Not irritant |
| | | | | | Dermal | |
| | | | | | Irritation/Corrosio | |
| | | | | | n) | |
| Serious eye | | | | Rabbit | OECD 405 (Acute | Not irritant |
| damage/irritation: | | | | | Eye | |
| | | | | | Irritation/Corrosio | |
| | | | | | n) | |
| Respiratory or skin | | | | Mouse | OECD 429 (Skin | Not |
| sensitisation: | | | | | Sensitisation - | sensitizising |
| | | | | | Local Lymph | |
| | | | | | Node Assay) | |
| Germ cell mutagenicity: | | | | | OECD 471 | Negative |
| | | | | | (Bacterial Reverse | |
| | | | | | Mutation Test) | |
| Germ cell mutagenicity: | | | | | OECD 473 (In | Negative |
| | | | | | Vitro Mammalian | |
| | | | | | Chromosome | |
| | | | | | Aberration Test) | |
| Germ cell mutagenicity: | | | | | OECD 476 (In | Negative |
| | | | | | Vitro Mammalian | |
| | | | | | Cell Gene | |
| | | | | | Mutation Test) | |





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| Carcinogenicity: | | | | | | No indications of such an effect. |
|--|-------|-------|---------------|-----|---|-----------------------------------|
| Reproductive toxicity: | NOEL | 1000 | mg/kg bw/d | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Dev elopm. Tox. Screening Test) | |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | No indications of such an effect. |
| Specific target organ toxicity - repeated exposure (STOT-RE): | | | | | | No indications of such an effect. |
| Aspiration hazard: | | | | | | No |
| Symptoms: | | | | | | No indications of such an effect. |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | 1000 | mg/kg bw/d | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Dev elopm. Tox. Screening Test) | |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEC | 0,212 | mg/l | Rat | OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study) | |

SECTION 12: Ecological information

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

| Membrane Adhesive K 290 ml | | | | | | | | | | |
|----------------------------|----------|------|-------|------|----------|-------------|--------|--|--|--|
| Art.: 9081355 | | | | | | | | | | |
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes | | | |
| 12.1. Toxicity to | | | | | | | n.d.a. | | | |
| fish: | | | | | | | | | | |
| 12.1. Toxicity to | | | | | | | n.d.a. | | | |
| daphnia: | | | | | | | | | | |





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| 12.1. Toxicity to | | | | n.d.a. |
|--------------------|--|--|---|----------------|
| algae: | | | | |
| 12.2. Persistence | | | | n.d.a. |
| and degradability: | | | | |
| 12.3. | | | | n.d.a. |
| Bioaccumulative | | | | |
| potential: | | | | |
| 12.4. Mobility in | | | | n.d.a. |
| soil: | | | | |
| 12.5. Results of | | | | n.d.a. |
| PBT and vPvB | | | | |
| assessment | | | | |
| 12.6. Other | | | | n.d.a. |
| adverse effects: | | | | |
| Other information: | | | | DOC- |
| | | | | elimination |
| | | | | degree(comp |
| | | | | lexing |
| | | | | organic |
| | | | | substance)>= |
| | | | | 80%/28d: |
| | | | | n.a. |
| Other information: | | | | According |
| | | | | to the recipe, |
| | | | | contains no |
| | | | | AOX. |
| | | | I | 11011 |

| Trimethoxyvinylsilane | | | | | | | | | | | |
|-----------------------|----------|------|-------|------|---------------|------------------|-----------|--|--|--|--|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes | | | | |
| 12.1. Toxicity to | LC50 | 96h | >=100 | mg/l | Brachydanio | | | | | | |
| fish: | | | | | rerio | | | | | | |
| 12.1. Toxicity to | LC50 | 96h | 191 | mg/l | Oncorhynchus | OECD 203 | | | | | |
| fish: | | | | | mykiss | (Fish, Acute | | | | | |
| | | | | | | Toxicity Test) | | | | | |
| 12.1. Toxicity to | EC50 | 48h | 168,7 | mg/l | Daphnia | Regulation | | | | | |
| daphnia: | | | | | magna | (EC) | | | | | |
| | | | | | | 440/2008 C.2 | | | | | |
| | | | | | | (DAPHNIA | | | | | |
| | | | | | | SP. ACUTE | | | | | |
| | | | | | | IMMOBILIS | | | | | |
| | | | | | | ATION | | | | | |
| | | | | | | TEST) | | | | | |
| 12.1. Toxicity to | NOEC/NO | 72h | >957 | mg/l | Scenedesmus | | 88/302/EC | | | | |
| algae: | EL | | | | subspicatus | | | | | | |
| 12.1. Toxicity to | IC50 | 72h | >100 | mg/l | Selenastrum | | | | | | |
| algae: | | | | | capricornutum | | | | | | |
| 12.1. Toxicity to | EC50 | 72h | >957 | mg/l | Scenedesmus | | | | | | |
| algae: | | | | | subspicatus | | | | | | |





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| 12.2. Persistence | | 28d | 51 | % | | OECD 301 F | Readily |
|--------------------|------|-----|-------|------|-----------|---------------|--------------|
| and degradability: | | | | | | (Ready | biodegradabl |
| | | | | | | Biodegradabil | e |
| | | | | | | ity - | |
| | | | | | | Manometric | |
| | | | | | | Respirometry | |
| | | | | | | Test) | |
| 12.5. Results of | | | | | | | No PBT |
| PBT and vPvB | | | | | | | substance, |
| assessment | | | | | | | No vPvB |
| | | | | | | | substance |
| Toxicity to | EC50 | | >2500 | mg/l | activated | | |
| bacteria: | | | | | sludge | | |

| Dioctylbis(pentane | Dioctylbis(pentane-2,4-dionato-O,O')tin | | | | | | | | | | |
|--------------------|---|------|-------|------|-------------|----------------|-------|--|--|--|--|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes | | | | |
| 12.1. Toxicity to | LC50 | 96h | 86 | mg/l | | OECD 203 | | | | | |
| fish: | | | | | | (Fish, Acute | | | | | |
| | | | | | | Toxicity Test) | | | | | |
| 12.1. Toxicity to | EC50 | 48h | 58,6 | mg/l | Daphnia | OECD 202 | | | | | |
| daphnia: | | | | | magna | (Daphnia sp. | | | | | |
| | | | | | | Acute | | | | | |
| | | | | | | Immobilisatio | | | | | |
| | | | | | | n Test) | | | | | |
| 12.1. Toxicity to | EC50 | 24h | 300 | mg/l | Scenedesmus | OECD 201 | | | | | |
| algae: | | | | | subspicatus | (Alga, | | | | | |
| | | | | | | Growth | | | | | |
| | | | | | | Inhibition | | | | | |
| | | | | | | Test) | | | | | |
| Water solubility: | | | 0,03 | g/l | | | 20°C | | | | |

| N-(3-(trimethoxysi | lyl)propyl)eth | ylenedia | mine | | | | |
|--------------------|----------------|----------|-------|------|-------------|-------------|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to | LC50 | 96h | 597 | mg/l | Brachydanio | | |
| fish: | | | | | rerio | | |
| 12.1. Toxicity to | NOEC/NO | 96h | 344 | mg/l | Brachydanio | | |
| fish: | EL | | | | rerio | | |
| 12.1. Toxicity to | LC50 | 96h | 597 | mg/l | Brachydanio | | |
| fish: | | | | | rerio | | |
| 12.1. Toxicity to | NOEC/NO | 96h | 344 | mg/l | Brachydanio | | |
| fish: | EL | | | | rerio | | |
| 12.1. Toxicity to | NOEC/NO | 48h | 35 | mg/l | Daphnia | | |
| daphnia: | EL | | | | magna | | |
| 12.1. Toxicity to | EC50 | 48h | 81 | mg/l | Daphnia | | |
| daphnia: | | | | | magna | | |
| 12.1. Toxicity to | NOEC/NO | 48h | 35 | mg/l | Daphnia | | |
| daphnia: | EL | | | | magna | | |
| 12.1. Toxicity to | EC50 | 48h | 81 | mg/l | Daphnia | | |
| daphnia: | | | | | magna | | |





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| 12.1. Toxicity to algae: | EC50 | 72h | 8,8 | mg/l | Selenastrum capricornutum | OECD 201 (Alga, Growth Inhibition Test) | |
|--------------------------|---------------|------|-----|--------|------------------------------|---|--------------|
| 12.1. Toxicity to algae: | NOEC/NO EL | 72h | 3,1 | mg/l | Selenastrum capricornutum | OECD 201 (Alga, | |
| argue. | | | | | capricornatum | Growth | |
| | | | | | | Inhibition | |
| | | | | | | Test) | |
| 12.1. Toxicity to | EC50 | 72h | 8,8 | mg/l | Selenastrum | OECD 201 | |
| algae: | | | | | capricornutum | (Alga, | |
| | | | | | | Growth | |
| | | | | | | Inhibition | |
| 12.1 Towisity to | NOEC/NO | 72h | 3,1 | m a /1 | Selenastrum | Test) OECD 201 | |
| 12.1. Toxicity to algae: | EL NOEC/NO | /211 | 3,1 | mg/l | capricornutum | (Alga, | |
| argac. | LL | | | | capricornutum | Growth | |
| | | | | | | Inhibition | |
| | | | | | | Test) | |
| 12.2. Persistence | | 28d | 39 | % | | Regulation | Not readily |
| and degradability: | | | | | | (EC) | biodegradabl |
| | | | | | | 440/2008 C.4- | e, |
| | | | | | | A | References |
| | | | | | | (DETERMIN | |
| | | | | | | ATION OF 'READY' | |
| | | | | | | BIODEGRAD | |
| | | | | | | ABILITY - | |
| | | | | | | DOC DIE- | |
| | | | | | | AWAY | |
| | | | | | | TEST) | |
| Toxicity to | EC10 | 16h | 25 | mg/l | Pseudomonas | DIN 38412 | |
| bacteria: | | | | | putida | T.8 | |

| Methanol | | | | | | | |
|--------------------|----------|------|-------|------|-------------|---------------|--------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to | LC50 | 96h | 15400 | mg/l | Lepomis | | |
| fish: | | | | | macrochirus | | |
| 12.1. Toxicity to | EC50 | 48h | >1000 | mg/l | Daphnia | | |
| daphnia: | | | 0 | | magna | | |
| 12.2. Persistence | | 28d | 99 | % | | OECD 301 D | Readily |
| and degradability: | | | | | | (Ready | biodegradabl |
| | | | | | | Biodegradabil | e |
| | | | | | | ity - Closed | |
| | | | | | | Bottle Test) | |
| 12.3. | BCF | | 28400 | | Chlorella | | Not to be |
| Bioaccumulative | | | | | vulgaris | | expected |
| potential: | | | | | | | _ |
| Other information: | DOC | | <70 | % | | | |
| Other information: | BOD | | >60 | % | | | |





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| Diisononyl phthala | | | | | | | |
|--------------------|-----------|-------|-------|-----------------------------|-------------|-----------------|--------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to | LC50 | 96h | >102 | mg/l | Brachydanio | 92/69/EC | |
| fish: | | | | | rerio | | |
| 12.1. Toxicity to | EC50 | 48h | >74 | mg/l | Daphnia | 92/69/EC | |
| daphnia: | | | | | magna | | |
| 12.1. Toxicity to | NOEC/NO | 21d | >101 | mg/l | Daphnia | OECD 202 | |
| daphnia: | EL | | | | magna | (Daphnia sp. | |
| 1 | | | | | | Acute | |
| | | | | | | Immobilisatio | |
| | | | | | | n Test) | |
| 12.1. Toxicity to | NOEC/NO | 72h | 88 | mg/l | Scenedesmus | | |
| algae: | EL | , =11 | | 111.6/1 | subspicatus | | |
| 12.1. Toxicity to | EC50 | 72h | >88 | mg/l | Scenedesmus | 84/449/EEC | |
| algae: | 2000 | , 211 | 700 | 1119/1 | subspicatus | C.3 | |
| 12.2. Persistence | | 28d | 81 | % | activated | Regulation | Readily |
| and degradability: | | 200 | 01 | /0 | sludge | (EC) | biodegradabl |
| and degradaomity. | | | | | studge | 440/2008 C.4- | e |
| | | | | | | C 440/2008 C.4- | |
| | | | | | | (DETERMIN | |
| | | | | | | ATION OF | |
| | | | | | | | |
| | | | | | | 'READY' | |
| | | | | | | BIODEGRAD | |
| | | | | | | ABILITY - | |
| | | | | | | CO2 | |
| | | | | | | EVOLUTION | |
| | | | | | | TEST) | |
| 12.3. | Log Pow | | 8,8- | | | | calculated |
| Bioaccumulative | | | 10,7 | | | | value |
| potential: | | | | | | | |
| 12.3. | BCF | 14d | <3 | | | | Analogous |
| Bioaccumulative | | | | | | | conclusion |
| potential: | | | | | | | |
| 12.4. Mobility in | Koc | | >5000 | | | | |
| soil: | | | | | | | |
| 12.4. Mobility in | H (Henry) | | 0,000 | atm*m | | | |
| soil: | | | 00149 | 3/mol | | | |
| Toxicity to | EC50 | 30min | >83,9 | mg/l | activated | OECD 209 | |
| bacteria: | | | | | sludge | (Activated | |
| | | | | | | Sludge, | |
| | | | | | | Respiration | |
| | | | | | | Inhibition | |
| | | | | | | Test (Carbon | |
| | | | | | | and | |
| | | | | | | Ammonium | |
| | | | | | | Oxidation)) | |
| Other organisms: | NOEC/NO | 56d | >982, | mg/kg | Eisenia | Januarion)) | |
| o and organisms. | EL | 204 | 4 | ₅ , ₅ | foetida | | |
| | LiL | | + | | Toctiud | | |





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| О | ther organisms: | LC50 | 14d | >7372 | mg/kg | Eisenia foetida | OECD 207 (Earthworm, Acute |
|---|-----------------|------|-----|-------|-------|--------------------|----------------------------------|
| | | | | | | | Toxicity |
| | | | | | | | Tests) |

| Calcium carbonate |) | | | | | | |
|--|---------------|------|-------|------|----------------------------|--|---|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | | | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | No observation with saturated solution of test material. |
| 12.1. Toxicity to daphnia: | EC50 | 48h | | | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisatio n Test) | No observation with saturated solution of test material. |
| 12.1. Toxicity to algae: | EC50 | 72h | >14 | mg/l | Desmodesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | NOEC/NO EL | 72h | 14 | mg/l | Desmodesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.2. Persistence and degradability: | | | | | | , | Not relevant for inorganic substances. |
| 12.3. Bioaccumulative potential: | | | | | | | Not to be expected |
| 12.4. Mobility in soil: | | | | | | | n.a. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| Toxicity to bacteria: | EC50 | 3h | >1000 | mg/l | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) | |





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| Toxicity to | NOEC/NO | 3h | 1000 | mg/l | activated | OECD 209 | |
|------------------|---------|------|-------|--------|-----------|---------------|--------------|
| bacteria: | EL | 311 | 1000 | 1115/1 | sludge | (Activated | |
| bacteria. | LL | | | | sidage | Sludge, | |
| | | | | | | Respiration | |
| | | | | | | Inhibition | |
| | | | | | | | |
| | | | | | | Test (Carbon | |
| | | | | | | and | |
| | | | | | | Ammonium | |
| | | | | | | Oxidation)) | |
| Other organisms: | EC50 | 21d | >1000 | mg/kg | | OECD 208 | Glycine max |
| | | | | dw | | (Terrestrial | |
| | | | | | | Plants, | |
| | | | | | | Growth Test) | |
| Other organisms: | EC50 | 21d | >1000 | mg/kg | | OECD 208 | Lycopersicon |
| | | | | dw | | (Terrestrial | esculentum |
| | | | | | | Plants, | |
| | | | | | | Growth Test) | |
| Other organisms: | EC50 | 21d | >1000 | mg/kg | | OECD 208 | Avena sativa |
| | | | | dw | | (Terrestrial | |
| | | | | | | Plants, | |
| | | | | | | Growth Test) | |
| Other organisms: | NOEC/NO | 21d | 1000 | mg/kg | | OECD 208 | Glycine max |
| Other organisms. | EL | 210 | 1000 | dw | | (Terrestrial | Grycine max |
| | LL | | | uw | | Plants, | |
| | | | | | | Growth Test) | |
| 041 | NOEC/NO | 21d | 1000 | /1 | | OECD 208 | T |
| Other organisms: | NOEC/NO | 210 | 1000 | mg/kg | | | Lycopersicon |
| | EL | | | dw | | (Terrestrial | esculentum |
| | | | | | | Plants, | |
| | MODGAM | 24.1 | 1000 | | | Growth Test) | |
| Other organisms: | NOEC/NO | 21d | 1000 | mg/kg | | OECD 208 | Avena sativa |
| | EL | | | dw | | (Terrestrial | |
| | | | | | | Plants, | |
| | | | | | | Growth Test) | |
| Other organisms: | EC50 | 14d | >1000 | mg/kg | Eisenia | OECD 207 | |
| | | | | dw | foetida | (Earthworm, | |
| | | | | | | Acute | |
| | | | | | | Toxicity | |
| | | | | | | Tests) | |
| Other organisms: | NOEC/NO | 14d | 1000 | mg/kg | Eisenia | OECD 207 | |
| | EL | | | dw | foetida | (Earthworm, | |
| | | | | | | Acute | |
| | | | | | | Toxicity | |
| | | | | | | Tests) | |
| Other organisms: | EC50 | 28d | >1000 | mg/kg | | OECD 216 | |
| Cuici organisms. | | 204 | 1000 | dw | | (Soil | |
| | | | | 4 ** | | Microorganis | |
| | | | | | | ms - Nitrogen | |
| | | | | | | Transformatio | |
| | | | | | | | |
| | | | | | | n Test) | |





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| Other organisms: | NOEC/NO | 28d | 1000 | mg/kg | OECD 216 | |
|-------------------|---------|-----|-------|-------|---------------|------|
| | EL | | | dw | (Soil | |
| | | | | | Microorganis | |
| | | | | | ms - Nitrogen | |
| | | | | | Transformatio | |
| | | | | | n Test) | |
| Water solubility: | | | 0,016 | g/l | OECD 105 | 20°C |
| | | | 6 | | (Water | |
| | | | | | Solubility) | |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

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.

SECTION 14: Transport information

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Classification code:n.a.LQ:n.a.

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Marine Pollutant:n.a

14.5. Environmental hazards: Not applicable





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Transport by air (IATA)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a. 14.4. Packing group: n.a.

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

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

Dioctylbis(pentane-2,4-dionato-O,O')tin

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 2 - This product contains the substances listed below:

| Entry Nr | Dangerous | Notes to Annex I | Qualifying quantity | Qualifying quantity |
|----------|------------|------------------|---------------------|---------------------|
| | substances | | (tonnes) for the | (tonnes) for the |
| | | | application of - | application of - |
| | | | Lower-tier | Upper-tier |
| | | | requirements | requirements |
| 22 | Methanol | | 500 | 5000 |

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): 2,44 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

2

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):





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| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used |
|--|--|
| Skin Sens. 1, H317 | 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).

H226 Flammable liquid and vapour.

H371 May cause damage to organs if swallowed.

H317 May cause an allergic skin reaction.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

Skin Sens. — Skin sensitization

Flam. Liq. — Flammable liquid

Acute Tox. — Acute toxicity - inhalation

STOT SE — Specific target organ toxicity - single exposure

Eye Dam. — Serious eye damage

Skin Irrit. — Skin irritation

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)

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





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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 applicablen.av. not availablen.c. not checkedn.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.

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 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.