

# **SAFETY DATA SHEET**

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

# **Fix All Crystal**

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

1.1. Product identifier

Product name : Fix All Crystal

Registration number REACH : Not applicable (mixture)

Product type REACH : Mixture

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

# 1.2.1 Relevant identified uses

Sealant

Moisture-repellent compound

# 1.2.2 Uses advised against

No uses advised against known

# 1.3. Details of the supplier of the safety data sheet

# Supplier of the safety data sheet

SOUDAL N.V. Everdongenlaan 18-20 B-2300 Turnhout **3** +32 14 42 42 31 +32 14 42 65 14 msds@soudal.com

#### Manufacturer of the product

SOUDAL N.V. Everdongenlaan 18-20 B-2300 Turnhout **2** +32 14 42 42 31 +32 14 42 65 14 msds@soudal.com

## 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):

+32 14 58 45 45 (BIG)

# SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

| Classifica as adriger | ous according to the | enteria of Regulation (Ee) No 1272/2000                  |
|-----------------------|----------------------|--|
| Class Category        |                      | Hazard statements  |
| Aquatic Chronic       | category 3           | H412: Harmful to aquatic life with long lasting effects. |

# 2.2. Label elements

Hazard pictograms

No pictogram is used

Signal word No signal word

H-statements

H412 Harmful to aquatic life with long lasting effects.

P-statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children. P273 Avoid release to the environment.

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

### 2.3. Other hazards

No other hazards known

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# SECTION 3: Composition/information on ingredients

# 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name<br>REACH Registration No  |              | CAS No<br>EC No         | Conc. (C)  | Classification according to CLP  | Note       | Remark      |
|--|--------------|-------------------------|--|--|------------|-------------|
| trimethoxyvinylsilane<br>01-2119513215-52  |              | 2768-02-7<br>220-449-8  | 1% <c<10%< td=""><td>Flam. Liq. 3; H226<br/>Acute Tox. 4; H332</td><td>(1)(10)</td><td>Constituent</td></c<10%<> | Flam. Liq. 3; H226<br>Acute Tox. 4; H332   | (1)(10)    | Constituent |
| 3-(trimethoxysilyl)propylamine<br>01-2119510159-45                                   |              | 13822-56-5<br>237-511-5 | 1% <c<3%< td=""><td>Eye Dam. 1; H318<br/>Skin Irrit. 2; H315</td><td>(1)(10)</td><td>Constituent</td></c<3%<>    | Eye Dam. 1; H318<br>Skin Irrit. 2; H315  | (1)(10)    | Constituent |
| bis(1,2,2,6,6-pentamethyl-4-pip<br>dimethylethyl)-4-hydroxypheny<br>01-2119978231-37 | / / [[-/ ( / | 63843-89-0<br>264-513-3 | 0.1% <c<0.25<br>%</c<0.25<br>  | STOT RE 1; H372<br>Acute Tox. 4; H302<br>Aquatic Chronic 1; H410   | (1)(9)     | Constituent |
| dioctylbis(pentane-2,4-dionato-<br>01-0000020199-67                                  |              | 54068-28-9<br>483-270-6 |  | Skin Sens. 1; H317<br>STOT SE 2; H371<br>STOT RE 2; H373   | (1)(8)(10) | Constituent |
| pyrithione zinc<br>01-2119511196-46  |              | 13463-41-7<br>236-671-3 | 0.01% <c<0.1<br>%</c<0.1<br>   | Acute Tox. 3; H301<br>Acute Tox. 4; H332<br>Eye Dam. 1; H318<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410 | (1)(9)     | Constituent |

<sup>(1)</sup> For H-statements in full: see heading 16

# SECTION 4: First aid measures

# 4.1. Description of first aid measures

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact

Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

# 4.2. Most important symptoms and effects, both acute and delayed

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eye contact: No effects known.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

4.3. Indication of any immediate medical attention and special treatment needed

If applicable and available it will be listed below.

# SECTION 5: Firefighting measures

# 5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Adapt extinguishing media to the environment for surrounding fires.

5.1.2 Unsuitable extinguishing media:

Not applicable.

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<sup>(8)</sup> Specific concentration limits, see heading 16

<sup>(9)</sup> M-factor, see heading 16

<sup>(10)</sup> Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

#### 5.2. Special hazards arising from the substance or mixture

On burning: release of silicon oxides, carbon monoxide - carbon dioxide.

## 5.3. Advice for firefighters

5.3.1 Instructions:

Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

# SECTION 6: Accidental release measures

# 6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Protective clothing.

Suitable protective clothing

See heading 8.2

#### 6.2. Environmental precautions

Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Use appropriate containment to avoid environmental contamination. Prevent soil and water pollution. Prevent spreading in sewers.

## 6.3. Methods and material for containment and cleaning up

Allow product to solidify and remove it by mechanical means. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

## 6.4. Reference to other sections

See heading 13.

# SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

#### 7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe normal hygiene standards. Do not discharge the waste into the drain. Keep container tightly closed.

# 7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Store at room temperature. Keep out of direct sunlight. Protect against frost. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat sources, combustible materials.

7.2.3 Suitable packaging material:

Plastics.

# 7.2.4 Non suitable packaging material:

No data available

#### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

# SECTION 8: Exposure controls/personal protection

# 8.1. Control parameters

# 8.1.1 Occupational exposure

### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

|--|

| Etain (composés organiques de) (en Sn)                  | Time-weighted average exposure limit 8 h   | $0.1 \text{ mg/m}^3$  |
|---|--|-----------------------|
|   | Short time value   | 0.2 mg/m <sup>3</sup> |
| France  |  |                       |
| Etain (composés organiques d'), en Sn                   | Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) | 0.1 mg/m <sup>3</sup> |
|   | Short time value (VL: Valeur non réglementaire indicative)                         | 0.2 mg/m <sup>3</sup> |
| UK  |  |                       |
| Tin compounds, organic, except Cyhexatin (ISO), (as Sn) | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))    | 0.1 mg/m³             |

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| in compounds, organic,  | , except Cyh                    | exatin (ISO), (as Sn)  | Short time value (Work   | place exposure limit (EH40/2   | 005)) 0.2 mg/m <sup>3</sup> |
|---|---------------------------------|--|--|--|-----------------------------|
| SA (TLV-ACGIH)  |                                 |  |  |  |                             |
| in organic compounds,   | as Sn                           |  | Time-weighted average  | exposure limit 8 h (TLV - Add  |                             |
|   |                                 |  | Short time value (TLV - A  | 0.2 mg/m <sup>3</sup>  |                             |
| ) National biological lin   |                                 |  |  |  |                             |
|   | ible and ava                    | ilable these will be listed b  | pelow.   |  |                             |
| Sampling methods applicable and available   | ا مطالني يا                     | isted below  |  |  |                             |
| • • •   |                                 | g the substance or mixtur  | e as intended  |  |                             |
| • •   |                                 | ilable these will be listed b  |  |  |                             |
| DNEL/PNEC values  |                                 |  |  |  |                             |
| NEL/DMEL - Workers  |                                 |  |  |  |                             |
| imethoxyvinylsilane   |                                 | _  |  |  |                             |
| Effect level (DNEL/DM   | IEL)                            | Type   | ata inhalatian   | Value  | Remark                      |
| DNEL  |                                 | Long-term systemic effe<br>Long-term systemic effe   |  | 27.6 mg/m³ 3.9 mg/kg bw/day  |                             |
| L   | lamine                          | Long-term systemic ene   | cts dermai   | 3.5 mg/kg bw/day   |                             |
| Effect level (DNEL/DM   |                                 | Туре   |  | Value  | Remark                      |
| DNEL  |                                 | Long-term systemic effe  | cts inhalation   | 58 mg/m³   |                             |
|   |                                 | Long-term systemic effe  |  | 8.3 mg/kg bw/day   |                             |
|   |                                 | yl) [[3,5-bis(1,1-dimethyle  | thyl)-4-hydroxyphenyl]me   |  | <b>b</b> •                  |
| Effect level (DNEL/DM<br>DNEL   | IEL)                            | Type  Long-term systemic effe  | ets inhalation   | Value<br>0.05 mg/m <sup>3</sup>  | Remark                      |
| DIVEL   |                                 | Long-term systemic effe  |  | 0.07 mg/kg bw/day  |                             |
| Lioctylbis(pentane-2,4-d  | ionato-O.O'                     |  | cts definal  | 0.07 mg/kg bw/day  |                             |
| Effect level (DNEL/DM   |                                 | Туре   |  | Value  | Remark                      |
| DNEL  |                                 | Long-term systemic effe  |  | 84 mg/m³   |                             |
|   |                                 | Acute systemic effects in  |  | 84 mg/m³   |                             |
|   |                                 | Long-term local effects i  |  | 0.091 mg/m³  |                             |
|   |                                 | Acute local effects inhali   |  | 0.091 mg/m³  |                             |
| lyrithione zinc   | Long-term systemic ef           |  | cts dermai   | 0.07 mg/kg bw/day  |                             |
| Effect level (DNEL/DM   | IEL)                            | Туре   |  | Value  | Remark                      |
| DNEL  |                                 | Long-term systemic effe  | cts dermal   | 0.01 mg/kg bw/day  |                             |
| NEL/DMEL - General p  | <u>opulation</u>                |  |  |  | •                           |
| imethoxyvinylsilane   |                                 | _  |  |  | <u> </u>                    |
| Effect level (DNEL/DM   | IEL)                            | Type   | ata inhalatian   | Value  | Remark                      |
| DNEL  |                                 | Long-term systemic effe  |  | 18.9 mg/m³ 7.8 mg/kg bw/day  |                             |
| Long-term systemic eff  |                                 |  |  |  |                             |
|   |                                 | Long-term systemic effe  | U.S Hig/ kg bw/ day  |  |                             |
| -(trimethoxysilyl)propyl  | lamine                          | Long-term systemic effe  |  | 0.3 mg/kg bw/day   |                             |
| -(trimethoxysilyl)propyl<br>Effect level (DNEL/DM   |                                 | Туре   |  | Value  | Remark                      |
|   |                                 | Type Long-term systemic effe   |  | Value<br>17 mg/m³  | Remark                      |
| Effect level (DNEL/DM   |                                 | Type Long-term systemic effe Long-term systemic effe   | cts dermal   | Value<br>17 mg/m³<br>5 mg/kg bw/day  | Remark                      |
| Effect level (DNEL/DM<br>DNEL   | TEL)                            | Type Long-term systemic effe Long-term systemic effe Long-term systemic effe   | cts dermal<br>cts oral   | Value<br>17 mg/m³<br>5 mg/kg bw/day<br>5 mg/kg bw/day  | Remark                      |
| Effect level (DNEL/DM<br>DNEL<br>is(1,2,2,6,6-pentameth   | <b>1EL)</b><br>yl-4-piperidy    | Type Long-term systemic effe Long-term systemic effe Long-term systemic effe (/) [[3,5-bis(1,1-dimethyle)]   | cts dermal<br>cts oral   | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate   |                             |
| Effect level (DNEL/DM<br>DNEL   | <b>1EL)</b><br>yl-4-piperidy    | Type Long-term systemic effe Long-term systemic effe Long-term systemic effe (1) [[3,5-bis(1,1-dimethyle)] Type  | cts dermal<br>cts oral<br>thyl)-4-hydroxyphenyl]me   | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value   | Remark Remark               |
| Effect level (DNEL/DM<br>DNEL<br>is(1,2,2,6,6-pentameth)<br>Effect level (DNEL/DM   | <b>1EL)</b><br>yl-4-piperidy    | Type Long-term systemic effe Long-term systemic effe Long-term systemic effe (/) [[3,5-bis(1,1-dimethyle)]   | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation  | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate   |                             |
| Effect level (DNEL/DM<br>DNEL<br>is(1,2,2,6,6-pentameth)<br>Effect level (DNEL/DM   | <b>1EL)</b><br>yl-4-piperidy    | Type Long-term systemic effe Long-term systemic effe Long-term systemic effe (I) [[3,5-bis(1,1-dimethyle) Type Long-term systemic effe   | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal   | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³                                |                             |
| Effect level (DNEL/DM<br>DNEL<br>is(1,2,2,6,6-pentameth<br>Effect level (DNEL/DM<br>DNEL  | <b>1EL)</b><br>yl-4-piperidy    | Type Long-term systemic effet Long-term systemic effet Long-term systemic effet Long-term systemic effet Type Long-term systemic effet Long-term s | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal   | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyllbutylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day                |                             |
| Effect level (DNEL/DM<br>DNEL<br>is(1,2,2,6,6-pentameth<br>Effect level (DNEL/DM<br>DNEL<br>NEC<br>imethoxyvinylsilane  | <b>1EL)</b><br>yl-4-piperidy    | Type  Long-term systemic effet   Long-term systemic effet   Long-term systemic effet   Long-term systemic effet   If [3,5-bis(1,1-dimethyle)]  Type  Long-term systemic effet   Long-te | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal   | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |
| Effect level (DNEL/DM DNEL  is(1,2,2,6,6-pentameth) Effect level (DNEL/DM DNEL  NEC imethoxyvinylsilane Compartments  | <b>1EL)</b><br>yl-4-piperidy    | Type Long-term systemic effet Long-term systemic effet Long-term systemic effet Long-term systemic effet Type Long-term systemic effet Long-term s | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyllbutylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day                |                             |
| Effect level (DNEL/DM DNEL  is(1,2,2,6,6-pentameth) Effect level (DNEL/DM DNEL  NEC imethoxyvinylsilane Compartments Fresh water  | vI-4-piperidy<br>IEL)           | Type Long-term systemic effet Long-term systemic effet Long-term systemic effet Long-term systemic effet Island State Isla | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |
| Effect level (DNEL/DM DNEL  is(1,2,2,6,6-pentameth) Effect level (DNEL/DM DNEL  NEC imethoxyvinylsilane Compartments Fresh water Aqua (intermittent rele  | vI-4-piperidy<br>IEL)           | Type Long-term systemic effet Long-term systemic effet Long-term systemic effet Long-term systemic effet Island State Isla | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |
| Effect level (DNEL/DM DNEL  is(1,2,2,6,6-pentameth) Effect level (DNEL/DM DNEL  NEC imethoxyvinylsilane Compartments Fresh water  | vI-4-piperidy<br>IEL)           | Type Long-term systemic effet Long-term systemic effet Long-term systemic effet Long-term systemic effet Island State Isla | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |
| DNEL  is(1,2,2,6,6-pentameth)  Effect level (DNEL/DM  DNEL  NEC  imethoxyvinylsilane  Compartments  Fresh water  Aqua (intermittent rele  | vI-4-piperidy<br>IEL)           | Type Long-term systemic effet Long-term systemic effet Long-term systemic effet Long-term systemic effet Island State Isla | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |
| Effect level (DNEL/DM DNEL  is(1,2,2,6,6-pentameth) Effect level (DNEL/DM DNEL  NEC imethoxyvinylsilane Compartments Fresh water Aqua (intermittent rele Marine water STP   | yl-4-piperidy<br>IEL)<br>eases) | Type Long-term systemic effet Long-term system | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  t/l l l g/l l kg sediment dw t/kg sediment dw | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |
| Effect level (DNEL/DM DNEL  is(1,2,2,6,6-pentameth Effect level (DNEL/DM DNEL  NEC rimethoxyvinylsilane Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment                      | yl-4-piperidy<br>IEL)<br>eases) | Type Long-term systemic effet Long-term system | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |
| Effect level (DNEL/DM DNEL  is(1,2,2,6,6-pentameth Effect level (DNEL/DM DNEL  NEC imethoxyvinylsilane Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment | yl-4-piperidy<br>IEL)<br>eases) | Type Long-term systemic effet Long-term system | cts dermal cts oral thyl)-4-hydroxyphenyl]me cts inhalation cts dermal cts oral  t/l l l g/l l kg sediment dw t/kg sediment dw | Value 17 mg/m³ 5 mg/kg bw/day 5 mg/kg bw/day ethyl]butylmalonate Value 0.01 mg/m³ 33 µg/kg bw/day 3 µg/kg bw/day |                             |

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| 3-(trimethoxysilyl)propylamine |  |
|--------------------------------|--|
|                                |  |

| Compartments                               | Value                                | Remark |
|--|--------------------------------------|--------|
| Fresh water                                | <mark>0.33 mg</mark> /l              |        |
| Marine water                               | <mark>0.033 m</mark> g/l             |        |
| Aqua (intermittent rele <mark>ases)</mark> | 3.3 mg/l                             |        |
| STP  | 13 mg/l                              |        |
| Fresh water sediment                       | 1.2 mg/kg sediment dw                |        |
| Marine water sediment                      | <mark>0.12 mg/</mark> kg sediment dw |        |
| Soil                                       | 0.045 mg/kg soil dw                  |        |
| Oral                                       | 44.4 mg/kg food                      |        |

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

| Compartments                 | Value                                 | Remark |
|------------------------------|---------------------------------------|--------|
| Fresh water                  | <mark>0 mg/l</mark>                   |        |
| Marine water                 | <mark>0 mg/l</mark>                   |        |
| Aqua (intermittent releases) | <mark>0.61 mg</mark> /l               |        |
| STP                          | 1 mg/l                                |        |
| Fresh water sediment         | <mark>504.4 mg</mark> /kg sediment dw |        |
| Marine water sediment        | <mark>50.44 mg</mark> /kg sediment dw |        |
| Soil                         | 1 mg/kg soil dw                       |        |

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

| Compartments                               | Value                   | Remark |
|--|-------------------------|--------|
| Fresh water                                | 0.026 mg/l              |        |
| Marine water                               | 0.003 mg/l              |        |
| Aqua (intermittent rele <mark>ases)</mark> | 0.26 mg/l               |        |
| STP  | 1 mg/l                  |        |
| Fresh water sediment                       | 0.155 mg/kg sediment dw |        |
| Marine water sediment                      | 0.015 mg/kg sediment dw |        |
| Soil                                       | 0.016 mg/kg soil dw     |        |

<u>pyrithione zinc</u>

| Compartments          | Value                   | Remark |
|-----------------------|-------------------------|--------|
| Fresh water           | 90 ng/l                 |        |
| Marine water          | 90 ng/l                 |        |
| STP                   | 0.01 mg/l               |        |
| Fresh water sediment  | 0.009 mg/kg sediment dw |        |
| Marine water sediment | 0.009 mg/kg sediment dw |        |
| Soil                  | 1.02 mg/kg soil dw      |        |

## 8.1.5 Control banding

If applicable and available it will be listed below.

# 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

#### 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat.

# 8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

# a) Respiratory protection:

Respiratory protection not required in normal conditions.

## b) Hand protection:

Gloves.

- materials (good resistance)

Polyethylene.

## c) Eye protection:

Eye protection not required in normal conditions.

## d) Skin protection:

Protective clothing.

# 8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

# SECTION 9: Physical and chemical properties

# 9.1. Information on basic physical and chemical properties

| Physical form   | F  | Paste               |    |     |  |
|-----------------|--|---------------------|----|-----|--|
| Odour           | 1  | Mild odour          |    | - 4 |  |
|                 |  | Characteristic odou | ur |     |  |
| Odour threshold |  | No data available   |    |     |  |
| Colour          | Variable in colour, depending on the composition |                     |    |     |  |
| Particle size   | 1  | No data available   |    |     |  |

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| Explosion limits                        |      | No data available                                      |  |  |
|---|------|--|--|--|
| Flammability                            |      | Non-flammable  |  |  |
| Log Kow                                 |      | Not applicable (mixture)                               |  |  |
| Dynamic viscosity                       |      | No data available                                      |  |  |
| Kinematic viscosity                     |      | No data available                                      |  |  |
| Melting point                           |      | No data available                                      |  |  |
| Boiling point                           |      | No data available                                      |  |  |
| Evaporation rate                        |      | No data available                                      |  |  |
| Relative vapour density                 |      | No data available                                      |  |  |
| Vapour pressure                         |      | No data available                                      |  |  |
| Solubility                              |      | Water ; insoluble                                      |  |  |
|   |      | Organic solvents ; soluble                             |  |  |
| Relative density                        |      | 1.053 ; 20 °C  |  |  |
| Decomposition tempera                   | ture | No data available                                      |  |  |
| Auto-ignition temperatur <mark>e</mark> |      | No data available                                      |  |  |
| Flash point                             |      | No data available                                      |  |  |
| Explosive properties                    |      | No chemical group associated with explosive properties |  |  |
| Oxidising properties                    |      | Not classified Not classified                          |  |  |
| рН                                      |      | No data available                                      |  |  |
|   |      |  |  |  |

# 9.2. Other information

Absolute density 1053 kg/m³; 20 °C

# SECTION 10: Stability and reactivity

# 10.1. Reactivity

No data available.

# 10.2. Chemical stability

Stable under normal conditions.

# 10.3. Possibility of hazardous reactions

No data available.

## 10.4. Conditions to avoid

**Precautionary measures** 

Keep away from naked flames/heat.

# 10.5. Incompatible materials

Combustible materials.

# 10.6. Hazardous decomposition products

On burning: release of silicon oxides, carbon monoxide - carbon dioxide.

# SECTION 11: Toxicological information

# 11.1. Information on toxicological effects

11.1.1 Test results

# Acute toxicity

Fix All Crystal

No (test)data on the mixture available

Judgement is based on the relevant ingredients

trimethoxyvinylsilane

| Route of exposure    | Parameter | Method             | Value                         | Exposure time | Species           | Value           | Remark |
|----------------------|-----------|--------------------|-------------------------------|---------------|-------------------|-----------------|--------|
|                      |           |                    |                               |               |                   | determination   |        |
| Oral                 | LD50      | Equivalent to OECD | <mark>7120 mg</mark> /kg bw - |               | Rat (male/female) | Experimental    |        |
|                      |           | 401                | <mark>7236 mg</mark> /kg bw   |               |                   | value           |        |
| Dermal               | LD50      | Equivalent to OECD | 3259 mg/kg bw -               | 24 h          | Rabbit (female)   | Converted value |        |
|                      |           | 402                | 3880 mg/kg bw                 |               |                   |                 |        |
| Inhalation (vapours) | LC50      | Equivalent to OECD | 16.8 mg/l                     | 4 h           | Rat (male/female) | Experimental    |        |
|                      |           | 403                |                               |               |                   | value           |        |

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| Decorate   DSQ   Equivalent to OECD   2970 m/l/g bw   Decorate     |  | Parar   | meter   | Method   | Value  | Exposure time  | Species  | Value<br>determination  | Remark                |
|--|--|---|---|--|--|--|--|---|-----------------------|
| makalation (vapours) (.50) 060 403 > 5 ppm   6 h   Rat (male)   Read-across   makalation (vapours) (.50) 060 403 > 16 ppm   6 h   Rat (male)   Read-across   12.2.6.6-pertamethyl-4-piperiddy (15.5-bist) 1-idmethylethyl-4-piperiddy) (15.5-bist) (15.5-bist) 1-idmethyl-4-piperiddy) (15.5-bist) (1 | Oral   | LD50  |   | •  | 2.970 ml/kg b  | w  | Rat (male)   |   |                       |
| inhalation (vapours) LCSO DECD 403 > 16 ppm is h. Rat (fremate) Read-across struction of the production of the productio | Dermal   | LD50  |   |  | 11.3 ml/kg bv  | v 24 h   | Rabbit (male)  | 1 '   |                       |
| State   Content   Conten   | Inhalation (vapours  | ) LC50  |   | OECD 403   | > 5 ppm  | 6 h  | Rat (male)   | Read-across   |                       |
| Route of exposure   Parameter   Method   Value   Exposure time   Species   Mature   Method   Mature   Method    | Inhalation (vapours  | s) LC50   |   | OECD 403   | > 16 ppm   | 6 h  | Rat (female)   | Read-across   |                       |
| Coral   LDSO   | s(1,2,2,6,6-pentamet   | hyl-4-pir   | peridyl)  | [[3,5-bis(1,1-dimeth   | ylethyl)-4-hydr  | oxyphenyl]methyl]buty  | <u>Imalonate</u>   |   |                       |
| Dermal   LD50   Regulate   Remark   Rat (male/female)   Experimental value   Rat (male/female)   Experimental val   | Route of exposure  | Parar   | neter   | Method   | Value  | Exposure time  | Species  |   | Remark                |
| A02   Equivalent to OECD   2400 mg/m² air   4 h   Rat (male/female)   Experimental value   Crybis/pentane-2,4-dionato-0.0Tkn   | Oral   | LD50  |   | •  | 1490 mg/kg b   | ow   | Rat (male/female)  |   |                       |
| A03   value   Convibis(pentane-2.4-dionato-O.OT)tin  | Dermal   | LD50  |   | •  | > 3170 mg/kg   | bw 24 h  | Rat (male/female)  |   |                       |
| Route of exposure  | Inhalation (aerosol)   | ) LC50  |   | •  | > 460 mg/m³  | air 4 h  | Rat (male/female)  |   |                       |
| Dermal   LD50   DECD 423   2500 mg/kg   Rat (female)   Experimental value   Rat (male/female)   Experimental value   Experim   | octylbis(pentane-2,4   | dionato   | o-0,0')t  | in   |  |  |  |   |                       |
| Dermal LD50 DECD 402 > 2000 mg/g   | Route of exposure  | Parar   | neter   | Method   | Value  | Exposure time  | Species  |   | Remark                |
| Inhalation (vapours) LC50  | Oral   | LD50  |   | OECD 423   | 2500 mg/kg   |  | Rat (female)   | ·   |                       |
| A03  A03  Avalue  Aval | Dermal   | LD50  |   | OECD 402   | > 2000 mg/g  | 24 h   | Rat (male/female)  |   |                       |
| Route of exposure Parameter Method Value Exposure time Species Malue determination Activity Cral  LD50 DECD 401 Defmal LD50 DECD 401 Defmal LD50 DEPA OPP 81-2 Dermal LD50 DECD 403 LO3 mg/kg LC50 DECD 403 LO3 mg/l air A h Rat (male/female) Experimental value Inhalation (aerosol) LC50 DECD 403 LO3 mg/l air A h Rat (male/female) Experimental value Experimental value  Not classified for acute toxicity  Non/irritation  LCrystal O (test)data on the mixture available the light of practical experience, the classification for this mixture is less stringent than the one based on the calculation set out imethoxyvinyIslane  Route of exposure Result Method Exposure time Time point Species Value determination Eye Not irritating DECD 405 | Inhalation (vapours  | ;) LC50   |   | •  | 5.1 mg/l air   | 4 h  | Rat (male/female)  |   |                       |
| Oral LD50 OECD 401 269 mg/kg bw Rat (male/female) Experimental value  Dermal LD50 EPA OPP 81-2 > 2000 mg/kg 24 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 403 L.03 mg/l air 4 h Rat (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 405 Logical Remark (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 405 Logical Remark (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 404 Logical Remark (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 404 Logical Remark (male/female) Experimental value  Inhalation (aerosol) LC50 DECD 405 Logical Remark (male/female) Experimental value Logical Remark (male/female) Logical Remark (mal | rithione zinc  |   |   |  |  |  |  |   |                       |
| Dermal LD50 EPA OPP 81-2 > 2000 mg/kg 24 h Rat (male/female) Experimental value inhalation (aerosol) LC50 OECD 403 1.03 mg/l air 4 h Rat (male/female) Experimental value value inhalation (aerosol) LC50 OECD 403 1.03 mg/l air 4 h Rat (male/female) Experimental value value value    Crystal   | Route of exposure  | Parar   | neter   | Method   | Value  | Exposure time  |  |   | Remark                |
| Inhalation (aerosol) LC50 OECD 403 1.03 mg/l air 4 h Rat (male/female) Experimental value Experimental value Experimental value Experimental value Otest) data on the mixture available the light of practical experience, the classification for this mixture is less stringent than the one based on the calculation set out imethoxyvinylsilane Route of exposure Result Method Exposure time Time point Species Value Getermination Experimental value Skin Not irritating OECD 405 24 h 1; 24; 48; 72 hours Rabbit Experimental value (trimethoxysilyl)propylamine Route of exposure Result Method Exposure time Time point Species Value Getermination Experimental value (trimethoxysilyl)propylamine Route of exposure Result Method Exposure time Time point Species Value Getermination Remark Getermination Remark Getermination Poech 404 3 minutes - 240 1; 24; 48; 72 hours Rabbit Read-across Getermination Remark Getermination Species Value Getermination Remark Getermination Species Value Getermination Remark Getermination Species Value Getermination Species Skin Not irritating Equivalent to OECD 405 Skin Not irritating Equivalent to OECD 405 Skin Not irritating Equivalent to OECD 405 Skin Rabbit Experimental value Species Skin Rabbit Experimental  | Oral   | LD50  |   | OECD 401   |  |  |  | · ·   |                       |
| Crestal   Cres   |  |   |   | EPA OPP 81-2   |  | 24 h   |  | ·   |                       |
| ot classified for acute toxicity  ion/irritation    Crystal  | Inhalation (aerosol)   | ) LC50  |   | OECD 403   | 1.03 mg/l air  | 4 h  | Rat (male/female)  | ·   |                       |
| Route of exposure Result Method Exposure time Time point Species Value determination  Eye Not irritating OECD 405 24 h 1; 24; 48; 72 hours Rabbit Experimental value  Skin Not irritating 24 h 24; 48; 72 hours Rabbit Experimental value  (trimethoxysilyl)propylamine  Route of exposure Result Method Exposure time Time point Species Value determination  Eye Serious eye damage OECD 405  Skin Irritating OECD 404 3 minutes - 240 1; 24; 48; 72; 168 Rat Calculated value minutes  s(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate  Route of exposure Result Method Exposure time Time point Species Value determination  Eye Not irritating Equivalent to OECD 405  Skin Not irritating Equivalent to OECD 405  Experimental value Experimental value   | ot classified for acute  | toxicity  |   |  |  |  |  | 10.00   |                       |
| Eye Not irritating OECD 405 24 h 1; 24; 48; 72 hours Rabbit Experimental value  Skin Not irritating 24 h 24; 48; 72 hours Rabbit Experimental value  (trimethoxysilyl)propylamine  Route of exposure Result Method Exposure time Time point Species Value determination  Eye Serious eye Equivalent to damage OECD 405  Skin Irritating OECD 404 3 minutes - 240 minutes - 240 minutes  s(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate  Route of exposure Result Method Exposure time Time point Species Value determination  Froute of exposure Result Method Exposure time Time point Species Value determination  Eye Not irritating Equivalent to OECD 405  Skin Not irritating Equivalent to OECD 405  Skin Not irritating Equivalent to OECD 405  Skin Not irritating Equivalent to 24 h 24; 72 hours Rabbit Experimental value  | on/irritation    <u>Crystal</u> o (test)data on the m the light of practical   | ixture av   | vailable  |  | s mixture is les   | s stringent than the one   | e based on the calculati   |   |                       |
| Route of exposure   Result   Method   Exposure time   Time point   Species   Value   Remark  | on/irritation    Crystal   | ixture av<br>experier   | vailable  | e classification for thi   |  |  |  | ion set out  Value  | Remark                |
| Route of exposure Result Method Exposure time Time point Species Value determination  Eye Serious eye Gamage OECD 405  Skin Irritating OECD 404 3 minutes - 240 painutes - 240 painutes s(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate  Route of exposure Result Method Exposure time Time point Species Value determination  Eye Not irritating Equivalent to OECD 405  Skin Equivalent to OECD 405  Skin Exposure time Time point Species Value determination Experimental value Experimental value Experimental value   | on/irritation    Crystal   | ixture av<br>experie <mark>r</mark><br>Result   | vailable<br>nce, the                              | e classification for thi   | Exposure t   | ime Time point   | Species  | ion set out<br>Value<br>determination   |                       |
| Eye   Serious eye   Equivalent to   OECD 405   Skin   Irritating   OECD 404   3 minutes - 240   hours   Rabbit   Read-across   | on/irritation    Crystal   Do (test)data on the model the light of practical methoxyvinylsilane   Route of exposure   Eye   Skin   | ixture av<br>experier<br>Result<br>Not irrita   | vailable<br>nce, the<br>ating                     | e classification for thi   | Exposure t   | Time point 1; 24; 48; 72 h   | Species<br>ours Rabbit   | Value<br>determination<br>Experimental valu   | e                     |
| damage OECD 405  Skin Irritating OECD 404 3 minutes - 240 1; 24; 48; 72; 168 Rat Calculated value  s(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate  Route of exposure Result Method Exposure time Time point Species Value determination  Eye Not irritating Equivalent to OECD 405  Skin Not irritating Equivalent to 24 h 24; 72 hours Rabbit Experimental value  | on/irritation    Crystal   | ixture avexperier  Result  Not irrita  Not irrita  Not irrita   | vailable<br>nce, the<br>ating                     | Method  OECD 405   | Exposure t  24 h  24 h   | Time point  1; 24; 48; 72 hou  24; 48; 72 hou  | Species  ours Rabbit  rs Rabbit  | Value determination Experimental valu Experimental valu   | e<br>e                |
| minutes   hours  | on/irritation    Crystal   | ixture avexperier  Result  Not irrita  Not irrita  Not irrita  Vlamine  Result  | vailable<br>nce, the<br>ating<br>ating            | Method  OECD 405   | Exposure t  24 h  24 h   | Time point  1; 24; 48; 72 hou  24; 48; 72 hou  | Species  ours Rabbit  rs Rabbit  Species   | Value determination Experimental valu Experimental valu Value   | e<br>e                |
| Route of exposure     Result     Method     Exposure time     Time point     Species     Value determination       Eye     Not irritating     Equivalent to OECD 405     30 seconds     24; 48; 72 hours     Rabbit     Experimental value       Skin     Not irritating     Equivalent to     24 h     24; 72 hours     Rabbit     Experimental value   | on/irritation    Crystal   | experier  Result  Not irrita  Not irrita  Vlamine  Result  Serious o  | vailable nce, the ating ating                     | Method  Method  Method  Method  Method  Equivalent to OECD 405   | Exposure t  24 h  24 h  Exposure t   | Time point  1; 24; 48; 72 h  24; 48; 72 hou  ime Time point  24; 48; 72 hou  | Species ours Rabbit rs Rabbit Species rs Rabbit  | Value determination Experimental value Experimental value Value determination   | e<br>e                |
| Eye Not irritating Equivalent to OECD 405  Skin Not irritating Equivalent to 24 h 24; 72 hours Rabbit Experimental value Experimental value  | on/irritation    Crystal   | ixture avexperier  Result  Not irritation  Not irritation  Not irritation  Not irritation  Not irritation  Not irritation                   | vailable nce, the ating ating eye                 | Method  Method  Method  Method  Equivalent to OECD 405  OECD 405   | Exposure t  24 h  24 h  Exposure t  3 minutes minutes  | Time point  1; 24; 48; 72 hou  24; 48; 72 hou  ime Time point  24; 48; 72 hou  1; 24; 48; 72 hou  1; 24; 48; 72; 24hours   | Species ours Rabbit rs Rabbit Species rs Rabbit  | Value determination Experimental value Experimental value Value determination Read-across   | e<br>e                |
|  | on/irritation    Crystal   Do (test) data on the methology the light of practical methoxyvinylsilane   Route of exposure   | ixture avexperier  Result  Not irritation  Not irritation  Result  Serious of damage lirritating  | vailable nce, the ating ating eye                 | Method  DECD 405  Method  Equivalent to OECD 405  OECD 404  OECD 404   | Exposure t  24 h  24 h  Exposure t  3 minutes minutes wiethyl)-4-hydr                          | Time point  1; 24; 48; 72 hou  24; 48; 72 hou  ime Time point  24; 48; 72 hou  24; 48; 72 hou  1; 24; 48; 72; 2  hours  roxyphenyl]methyl]buty   | Species ours Rabbit rs Rabbit Species rs Rabbit L68 Rat                                | Value determination Experimental valu Experimental valu  Value determination Read-across Calculated value  Value                                  | e<br>e<br>Remark      |
|  | on/irritation    Crystal   | ixture avexperier  Result  Not irrit:  Not irrit:  ylamine  Result  Serious of damage lirritating hyl-4-pir  Result                         | vailable nce, the ating ating eye eye g           | Method  DECD 405  Method  Equivalent to OECD 405  OECD 404  OECD 404  I [3,5-bis(1,1-dimethod)  Method  Equivalent to DECD 404   | Exposure t  24 h  24 h  Exposure t  3 minutes minutes wilethyl)-4-hydr  Exposure t             | ime Time point  1; 24; 48; 72 hou  24; 48; 72 hou  ime Time point  24; 48; 72 hou  24; 48; 72 hou  - 240 1; 24; 48; 72; 24; 48; 72; 25; 26; 27; 28; 29; 29; 20; 20; 20; 20; 20; 20; 20; 20; 20; 20 | Species ours Rabbit rs Rabbit Species rs Rabbit L68 Rat Imalonate Species              | Value determination Experimental value Experimental value Value determination Read-across Calculated value  Value determination                   | e Remark              |
|  | on/irritation    Crystal   Do (test) data on the methoxytological methoxyt | ixture avexperier  Result  Not irritation  Not irritation  Serious of damage irritation  thyl-4-pir  Result  Not irritation  Not irritation | vailable nce, the ating ating eye eye eye gridyl) | Method  OECD 405  Method  Equivalent to OECD 404  OECD 404  I [3,5-bis(1,1-dimethod)  Method  Equivalent to OECD 405  Equivalent to OECD 405  Equivalent to OECD 405  Equivalent to OECD 405  Equivalent to OECD 405 | Exposure t  24 h  24 h  Exposure t  3 minutes minutes wilethyl)-4-hydr  Exposure t  30 seconds | ime Time point  1; 24; 48; 72 hou  24; 48; 72 hou  ime Time point  24; 48; 72 hou  24; 48; 72 hou  - 240   | Species ours Rabbit rs Rabbit  Species rs Rabbit  L68 Rat  Imalonate Species rs Rabbit | Value determination Experimental valu Experimental valu  Value determination Read-across  Calculated value  Value determination Experimental valu | Remark Remark  Remark |

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| Route of exposure      | Result                             | Method      | Exposure time | Time point          | Species | Value<br>determination | Remark |
|------------------------|------------------------------------|-------------|---------------|---------------------|---------|------------------------|--------|
| ye                     | Not irritating                     | OECD 405    |               | 24; 72 hours        | Rabbit  | Experimental value     |        |
| Skin                   | Not irritating                     | OECD 404    | 4 h           | 1 hour              | Rabbit  | Experimental value     |        |
| rithione zinc          |                                    |             |               |                     |         |                        |        |
| Route of exposure      | Result                             | Method      | Exposure time | Time point          | Species | Value<br>determination | Remark |
| Eye                    | Serious <mark>eye</mark><br>damage | OECD 405    | 24 h          | 24 hours            | Rabbit  | Experimental value     |        |
| Skin                   | Not irrit <mark>ating</mark>       | OECD 404    | 4 h           | 1; 24; 48; 72 hours | Rabbit  | Experimental value     |        |
| clusion                | ting to the receive                | ton, auston |               |                     |         |                        | Į.     |
| t classified as irrita | iting to the respira               | tory system |               |                     |         |                        |        |
| t ciassineu as ii iita | ating to the eyes                  |             |               |                     |         |                        |        |

#### Res

## Fix All Crystal

No (test)data on the mixture available

In the light of practical experience, the classification for this mixture is less stringent than the one based on the calculation set out

trimethoxyvinylsilane

| Route of exposure      | Result          | Method   | • | Observation time point | Species                     | Value determination Remark |
|------------------------|-----------------|----------|---|------------------------|-----------------------------|----------------------------|
| Skin                   | Not sensitizing | OECD 406 |   | •                      | Guinea pig<br>(male/female) | Experimental value         |
| 3-(trimethoxysilyl)pro | pylamine        |          |   |                        |                             |                            |
| Route of exposure      | Result          | Method   | • | Observation time       | Species                     | Value determination Remark |

Skin Not sensitizing OECD 406 72 h 24; 48 hours Guinea pig Experimental value male/female)

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Route of exposure Result Method Exposure time Observation time Species Value determination Remark Species point Skin Not sensitizing Other Guinea pig Experimental value male/female)

dioctylbis(pentane-2,4-dionato-0,0')tin

| Route of exposure     | Result                    | Method   | Exposure time | Observation time | Species        | Value determination | Remark |
|-----------------------|---------------------------|----------|---------------|------------------|----------------|---------------------|--------|
|                       |                           |          |               | point            |                |                     |        |
| Skin                  | Sensitizi <mark>ng</mark> | OECD 429 |               |                  | Mouse (female) | Experimental value  |        |
| <br>Artists and their |                           |          |               |                  |                |                     |        |

pyrithione zinc

| Route of exposure | Result          | Method   | Observation time point | Species                | Value determination Remark |
|-------------------|-----------------|----------|------------------------|------------------------|----------------------------|
| Skin              | Not sensitizing | OECD 406 | •                      | Guinea pig<br>(female) | Experimental value         |
| Inhalation        |                 |          |                        |                        | Data waiving               |

# Conclusion

Not classified as sensitizing for skin Not classified as sensitizing for inhalation

# Specific target organ toxicity

# Fix All Crystal

No (test)data on the mixture available

Judgement is based on the relevant ingredients

trimethoxyvinylsilane

| Route of exposure       | Parameter | Method                      | Value                | Organ | Effect | Exposure time                        | <br>Value<br>determination |
|-------------------------|-----------|-----------------------------|----------------------|-------|--------|--------------------------------------|----------------------------|
| Oral (stomach tube)     | LOAEL     |                             | 62.5 mg/kg<br>bw/day |       |        | 6 weeks (daily) - 8<br>weeks (daily) | Experimental value         |
| Oral (stomach tube)     | LOAEL     |                             | 250 mg/kg<br>bw/day  |       |        | 6 weeks (daily) - 8<br>weeks (daily) | Experimental value         |
| Inhalation<br>(vapours) |           | Subchronic<br>toxicity test | 100 ppm              |       |        | 14 weeks (6h/day, 5<br>days/week)    | Experimental value         |

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| Route of ex  |                     |                     | eter | Method                       | Value                                     | Organ                          | Effect   |   | Species              | Value<br>determination   |
|--|---------------------|---------------------|------|------------------------------|---|--------------------------------|--|---|----------------------|--------------------------|
| Oral (stoma<br>tube)   |                     | LOAEL               |      | OECD 408                     | 600 mg/kg<br>bw/day                       | Liver                          | Clinical signs;<br>mortality; bod<br>weight; food<br>consumption |   | Rat<br>(male/female) | Read-across              |
| Oral (stoma<br>tube)   | ch                  | NOAEL               |      | OECD 408                     | 200 mg/kg<br>bw/day                       | Liver                          | No effect  | 92 day(s)                               | Rat<br>(male/female) | Read-across              |
| Inhalation (a  |                     | (inhala<br>risk tes | t)   | Equivalent to<br>OECD 412    | 147 mg/m³ air                             | Lungs                          | Lesions in<br>larynx, traches<br>and lung                        | days/week)                              | Rat (male)           | Read-across              |
| Route of ex  |                     |                     |      | 1)   3,5-bis(1,1-d<br>Method | Value                                     | hydroxyphenyl]<br>Organ        | Effect   |   | Species              | Value<br>determination   |
| Oral (stoma<br>tube)   | ch                  | LOAEL               |      | OECD 421                     | 10 mg/kg<br>bw/day                        | Lymph nodes                    | Enlargement of<br>the lymph<br>glands                            |   | Rat<br>(male/female) | Experimental value       |
| Oral (stoma<br>tube)   | ch                  | LOAEL               |      | OECD 421                     | 10 mg/kg<br>bw/day                        | Liver                          | Enlargement/a<br>ection of the<br>liver                          |   | Rat<br>(male/female) | Experimental value       |
| Oral (stoma<br>tube)   |                     | LOAEL               |      | OECD 421                     | 10 mg/kg<br>bw/day                        | Spleen                         | Spleen<br>enlargement/a<br>ection                                |   | Rat<br>(male/female) | Experimental value       |
| dioctylbis(penta   |                     |                     |      |                              | h   | lo.                            | lecc .   |   | h ·                  | h                        |
| Route of ex  | posure              | Parame              | eter | Method                       | Value                                     | Organ                          | Effect   | Exposure time                           | Species              | Value<br>determination   |
| Oral (diet)  |                     | NOAEL               |      | OECD 422                     | 0.3 mg/kg<br>bw/day - 0.5<br>mg/kg bw/day | Thymus                         | No effect  | 28 day(s)                               | Rat<br>(male/female) | Experimental<br>value    |
| Dermal   |                     | NOTO                |      | Fautoria                     | 100                                       |                                | No offer   | 14 200 - 10-10-1                        | Dot                  | Data waiving             |
| Inhalation<br>(vapours)  |                     | NOEC                |      | Equivalent to<br>OECD 413    | 100 ppm                                   |                                | No effect  | 14 weeks (6h/day, 5 days/week)          | (male/female)        | Experimental value       |
| Inhalation<br>(vapours)  |                     | LOAEC               |      | Equivalent to<br>OECD 413    | 650 ppm                                   | Various organs                 | Histopatholog  | y 14 weeks (6h/day, 5<br>days/week)     | Rat<br>(male/female) | Experimental value       |
| Route of ex  | nocura              | Darame              | ator | Method                       | Value                                     | Organ                          | Effect   | Exposure time                           | Species              | Value                    |
|  |                     |                     |      |                              |   | Organ                          |  |   |                      | determination            |
| Oral (stoma<br>tube)   |                     | NOAEL               |      | OECD 453                     | 0.5 mg/kg<br>bw/day                       |                                | No effect  | 98 weeks (daily) -<br>104 weeks (daily) | Rat<br>(male/female) | Experimental value       |
| Dermal   |                     | NOAEL               |      | EPA OPP 82-3                 | 100 mg/kg<br>bw/day                       |                                | No effect  |   | (male/female)        | Experimental value       |
| Dermal   |                     | LOAEL               |      | EPA OPP 82-3                 | 1000 mg/kg<br>bw/day                      |                                | Haematologica<br>changes   | days/week)                              | Rat<br>(male/female) | Experimental value       |
| Inhalation (d  | dust)               | LOAEL               |      | EPA OPPTS<br>870.3465        | 6 mg/m³ air                               |                                | Respiratory difficulties   | 3 weeks (6h/day, 5                      | Rat<br>(male/female) | Experimental value       |
| Inhalation (d  | dust)               | NOAEL               |      | EPA OPPTS<br>870.3465        | 2 mg/m³ air                               |                                | No effect  | 3 weeks (6h/day, 5                      | Rat<br>(male/female) | Experimental value       |
| onclusion<br>Not classified fo<br>genicity (in vitro<br>All Crystal<br>No (test)data or<br>rrimethoxyvinyl | o)<br>n the mi      |                     | Í    | le                           |   | 7                              |  |   |                      |                          |
| Result  Positive with activation, p  metabolic activation  | ositive v           | without             | OE   | ethod<br>ECD 473             |   | Test substrate<br>CHL/IU cells |  | iffect<br>Chromosome aberration         |                      | ermination<br>ntal value |
| Negative wi<br>activation, n<br>metabolic a  | th meta<br>legative | bolic<br>withou     |      | ECD 476                      |   | Chinese hamste                 | r ovary (CHO)  |   | Experime             | ntal value               |
| Negative wir<br>activation, n<br>metabolic a   | egative             | withou              |      | ECD 471                      |   | Bacteria (S.typh               | imurium)   | No effect                               | Experime             | ntal value               |
|  |                     |                     |      |                              |   |                                |  |   |                      |                          |
| n for revision: 3  | 3.2                 |                     |      |                              |   |                                | P  | ublication date: 2015-0                 | 01-06                |                          |

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| Ì  | Result   | Method  |  |                        | Test substrate  |  | Effect                             |   | Value                                 | determination  |
|--|--|---|--|------------------------|---|--|------------------------------------|---|---------------------------------------|--|
|  | Negative with metabolic  | OECD 476  | ,  |                        | Chinese hamster   |  | No effect                          |   | Read-a                                |  |
|  | activation, negative without metabolic activation  | OECD 476  | )  |                        | Chinese namster   | ovary (CHO)  | No effect                          |   | Neau-a                                | ICIOSS   |
|  | Negative with metabolic activation, negative without   | OECD 473  | 3  |                        | Chinese hamster<br>fibroblasts (V79)                                | lung   | No effect                          |   | Read-a                                | cross  |
|  | metabolic activation Negative with metabolic   | OECD 471  | L  |                        | Escherichia coli  | _  | No effect                          |   | Experir                               | mental value   |
|  | activation, negative without metabolic activation  |   |  |                        |   |  |                                    |   |                                       |  |
|  | Negative with metabolic activation, negative without metabolic activation  | OECD 471  | I  |                        | Bacteria (S.typhir  | nurium)  | No effect                          |   | Experir                               | nental value   |
|  | 1,2,2,6,6-pentamethyl-4-piper  | idyl) [[3,5-  | bis(1,1-dimethyleth  | yl)-4-                 | ı<br>-hydroxyphenyl]m   | ethyl]butylm   | i <u>alonate</u>                   |   |                                       |  |
|  | Result   | Method  |  |                        | Test substrate  |  | Effect                             |   | _                                     | determination  |
|  | Negative with metabolic activation, negative without metabolic activation  | Ames test   | i  |                        | Bacteria (S.typhir  | nurium)  | No effect                          |   | Experir                               | nental value   |
|  | Negative with metabolic activation, negative without metabolic activation  | OECD 476  | 5  |                        | Chinese hamster   | ovary (CHO)  | No effect                          |   | Experir                               | nental value   |
|  | Positive with metabolic activation, positive without metabolic activation  | OECD 473  | 3  |                        | Chinese hamster   | ovary (CHO)  |                                    |   | Experir                               | mental value   |
| dio  | ctylbis(pentane-2,4-dionato-0,   |   |  |                        | T   |  | F.C                                |   | h, .                                  | 1.1  |
|  | Result   | Method  |  |                        | Test substrate  |  | Effect                             |   |                                       | determination  |
|  | Negative with metabolic activation, negative without metabolic activation  | OECD 476  | )  |                        | Chinese hamster fibroblasts (V79)                                   | lung   | No effect                          |   | Experir                               | mental value   |
|  | Negative with metabolic activation, negative without metabolic activation  | OECD 473  | 3  |                        | Chinese hamster fibroblasts (V79)                                   | lung   | No effect                          |   | Experir                               | mental value   |
|  | Negative with metabolic activation, negative without metabolic activation  | OECD 471  | L  |                        | Bacteria (S.typhir  | nurium)  | No effect                          |   | Experir                               | mental value   |
|  | ithione zinc   |   |  |                        |   |  |                                    |   |                                       |  |
|  | Result Negative with metabolic   | Method<br>OECD 471  | <u> </u>   |                        | Test substrate<br>Bacteria (S.typhir                                |  | Effect<br>No effect                |   |                                       | determination<br>mental value  |
|  | activation, negative without metabolic activation  | OLCD 471  |  |                        |   | iunum  | ivo errect                         |   | Lxperii                               | nentai value   |
| ,  | Negative with metabolic activation   | OECD 476  | 5  |                        | Chinese hamster<br>fibroblasts (V79)                                | lung   | No effect                          |   | Experir                               | mental value   |
|  |  |   |  |                        | ` '   |  |                                    |   |                                       |  |
|  | Negative with metabolic activation   | OECD 473  | 3  |                        | Chinese hamster fibroblasts (V79)                                   | lung   | Chromosome a                       | berrations  | Experir                               | mental value   |
|  | -  | OECD 473  | 3  |                        | Chinese hamster   | lung   | Chromosome a                       | berrations  | Experir                               | mental value   |
| agen   | activation  nicity (in vivo)  Crystal  |   | 3  |                        | Chinese hamster   | lung   | Chromosome a                       | berrations  | Experir                               | mental value   |
| tagen<br>x All C<br>No l<br>Juda                                   | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevan   | able  |  |                        | Chinese hamster   | lung   | Chromosome a                       | berrations  | Experin                               | mental value   |
| tagen<br><u>k All C</u><br>No l<br>Jud <sub>e</sub><br><u>trim</u> | activation  nicity (in vivo)  Crystal (test)data on the mixture avail  | able<br>nt ingredie   | ints   |                        | Chinese hamster<br>fibroblasts (V79)                                |  |                                    |   | <u>  '</u>                            |  |
| agen<br>All C<br>No<br>Jud<br>trim                                 | activation  nicity (in vivo)  Crystal (test)data on the mixture availagement is based on the relevantethoxyvinylsilane   | able<br>nt ingredie   | ents   | Expos                  | Chinese hamster   | Test substi  | rate                               | Organ Organ   | <u>  '</u>                            | Value determinatio   |
| agen<br>All (<br>No<br>Jud <sub>e</sub><br>trim                    | activation  nicity (in vivo)  Crystal (test)data on the mixture availagement is based on the relevanthy of the relevanth | able Int ingredie Mi  | ethod ECD 489  | Expos                  | Chinese hamster<br>fibroblasts (V79)<br>sure time                   | Test substi  | rate                               |   | <u>  '</u>                            |  |
| agen<br>No<br>Juda<br>trim<br>3-(t                                 | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevan nethoxyvinylsilane  Result Negative (Inhalation (vapours)   | able Int ingredie Int ingredie Int ingredie Int ingredie  | ethod CD 489 CED 489   | E <b>xpos</b><br>3 day | Chinese hamster<br>fibroblasts (V79)<br>sure time                   | Test substi  | rate<br>e)                         | Organ<br>Organ  |                                       | Value determinatio<br>Experimental value<br>Value determinatio   |
| x All C<br>No I<br>Juda<br>trim<br>3-(t                            | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  | able Int ingredie Mi I) OE Mg Eq 47   | ethod ECD 489 Ethod uivalent to OECD   | E <b>xpos</b><br>3 day | Chinese hamster<br>fibroblasts (V79)<br>sure time<br>is (1x/day)    | Test substi  | rate<br>e)                         | Organ   |                                       | <b>Value determinatio</b><br>Experimental value  |
| x All C<br>No Judg<br>trim   | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  ctylbis(pentane-2,4-dionato-0,  | able Int ingredie Mi I) OE Mg Eq 47 O')tin  | ethod ECD 489 Ethod uivalent to OECD 4   | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate<br>e)<br>rate<br>ale/female)  | Organ<br>Organ<br>Bone marrow                         | ,                                     | Value determinatio<br>Experimental value<br>Value determinatio<br>Read-across  |
| x All C<br>No Judg<br>trim   | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  ctylbis(pentane-2,4-dionato-0,  Result  | able Int ingredie | ethod   ECD 489   Ethod   Univalent to OECD 4  | Expos                  | Chinese hamster<br>fibroblasts (V79)<br>sure time<br>is (1x/day)    | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate<br>e)<br>rate<br>ale/female)  | Organ Organ Bone marrow                               | ,                                     | Value determination Experimental value Value determination Read-across Value determination   |
| x All C<br>No<br>Jud <sub>i</sub><br>trim                          | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  ctylbis(pentane-2,4-dionato-0,  Result Negative (Oral (stomach tube)  | able Int ingredie | ethod ECD 489 Ethod uivalent to OECD 4   | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate<br>e)<br>rate<br>ale/female)  | Organ<br>Organ<br>Bone marrow                         | ,                                     | Value determinatio<br>Experimental value<br>Value determinatio<br>Read-across  |
| tagen  No   Judi trim  3-(t  dioc                                  | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  ctylbis(pentane-2,4-dionato-0,  Result  | able  nt ingredie  Mi ) OE  Rq 47  O')tin  Mi ) OE  | ethod   ECD 489   Ethod   Univalent to OECD 4   ECD 474   ECD 474  | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate e) rate ale/female) rate ale/ | Organ Bone marrow Organ Bone marrow                   | ,                                     | Value determination Experimental value Value determination Read-across Value determination   |
| tagen  No   Judi trim  3-(t  dioc                                  | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  ctylbis(pentane-2,4-dionato-0,  Result Negative (Oral (stomach tube)  | able Int ingredie  Mi I) OE  Mi Eq 47  O')tin  Mi I) OE  Mi III III III III III III III III III   | ethod   ECD 489   Ethod   Univalent to OECD 4   ECD 474   ECD 474  | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate e) rate ale/female) rate ale/ | Organ Organ Bone marrow                               | , , , , , , , , , , , , , , , , , , , | Value determination Experimental value  Value determination Read-across  Value determination Experimental value                      |
| A All C No Judg trim 3-(t dioc                                     | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  ctylbis(pentane-2,4-dionato-0, Result Negative (Oral (stomach tube) ithione zinc  Result  Result  | able nt ingredie  Mi ) OE  Mn Eq 47 O')tin Mn OE  | ethod   ECD 489   Ethod   Univalent to OECD 44   ECD 474   Ethod   ECD 474   ECD 474 | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate e) rate ale/female) rate ale) | Organ Bone marrow Organ Bone marrow                   | , , , , , , , , , , , , , , , , , , , | Value determination Experimental value  Value determination Read-across  Value determination Experimental value  Value determination |
| x All C No Judg trim 3-(t dioc  pyri  Concl Not                    | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  Ctylbis(pentane-2,4-dionato-0, Result Negative (Oral (stomach tube) ithione zinc  Result Negative   | able nt ingredie  Mi ) OE  Mi Eq 47 O')tin Mi ) OE  | ethod   ECD 489   Ethod   Univalent to OECD 44   ECD 474   Ethod   ECD 474   ECD 474 | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate e) rate ale/female) rate ale) | Organ Bone marrow Organ Bone marrow                   | , , , , , , , , , , , , , , , , , , , | Value determination Experimental value  Value determination Read-across  Value determination Experimental value  Value determination |
| x All C No Judg trim 3-(t dioo  pyri  Conci                        | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevantethoxyvinylsilane  Result Negative (Inhalation (vapours) rimethoxysilyl)propylamine  Result Negative  ctylbis(pentane-2,4-dionato-0, Result Negative (Oral (stomach tube) ithione zinc  Result Negative  lusion classified for mutagenic or ger   | able nt ingredie  Mi ) OE  Mi Eq 47 O')tin Mi ) OE  | ethod   ECD 489   Ethod   Univalent to OECD 44   ECD 474   Ethod   ECD 474   ECD 474 | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate e) rate ale/female) rate ale) | Organ Bone marrow Organ Bone marrow                   | , , , , , , , , , , , , , , , , , , , | Value determination Experimental value  Value determination Read-across  Value determination Experimental value  Value determination |
| tagen  K All C  No Judg  trim  3-(t)  dioc  pyri  Not  Concl Not   | activation  nicity (in vivo)  Crystal (test)data on the mixture avail gement is based on the relevant to the r | able nt ingredie  Mi ) OE  Mi Eq 47 O')tin Mi ) OE  | ethod   ECD 489   Ethod   Univalent to OECD 44   ECD 474   Ethod   ECD 474   ECD 474 | Expos                  | Chinese hamster fibroblasts (V79)  sure time rs (1x/day)  sure time | Test substr<br>Rat (female<br>Test substr<br>Mouse (ma | rate e) rate ale/female) rate ale) | Organ Bone marrow Organ Bone marrow Organ Bone marrow | , , , , , , , , , , , , , , , , , , , | Value determination Experimental value  Value determination Read-across  Value determination Experimental value  Value determination |

No (test)data on the mixture available

Judgement is based on the relevant ingredients

3-(trimethoxysilyl)propylamine

| Route of | Parameter | Method                      | Value | Exposure time | Species | Effect                 | Organ | Value                              |
|----------|-----------|-----------------------------|-------|---------------|---------|------------------------|-------|------------------------------------|
| exposure |           |                             |       |               |         |                        |       | determination                      |
| Dermal   | NOAEL     | Carcinogenic toxicity study | 0/    |               |         | No carcinogenic effect |       | Inconclusive,<br>insufficient data |

pyrithione zinc

| Route of | Parameter | Method   | Value          | Exposure time     | Species       | Effect          | Organ | Value         |
|----------|-----------|----------|----------------|-------------------|---------------|-----------------|-------|---------------|
| exposure |           |          |                |                   |               |                 |       | determination |
| Oral     | NOAEL     | OECD 453 | > 2.1 mg/kg bw | 104 weeks (daily) | Rat           | No carcinogenic |       | Experimental  |
|          |           |          |                |                   | (male/female) | effect          |       | value         |

# Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

# Fix All Crystal

No (test)data on the mixture available

Judgement is based on the relevant ingredients

trimethoxyvinylsilane

|   | Parameter | Method              | Value                | Exposure time                     | Species      | Effect    | - 3 | Value<br>determination |
|---|-----------|---------------------|----------------------|-----------------------------------|--------------|-----------|-----|------------------------|
| Developmental toxicity (Inhalation (vapours)) | NOAEL     | EPA OTS<br>798.4350 |                      | 10 days<br>(gestation,<br>6h/day) | Rat (female) | No effect |     | Experimental<br>value  |
| Maternal toxicity<br>(Inhalation (vapours))   | NOAEL     | EPA OTS<br>798.4350 |                      | 10 days<br>(gestation,<br>6h/day) | Rat (female) | No effect |     | Experimental value     |
| Effects on fertility (Oral (stomach tube))    | NOAEL (P) |                     | 1000 mg/kg<br>bw/day | ≤ 43 day(s)                       | Rat (male)   | No effect |     | Experimental value     |

3-(trimethoxysilyl)propylamine

|                        | Parameter | Method              | Value               | Exposure time                    | Species              | Effect  | Organ    | Value<br>determination |
|------------------------|-----------|---------------------|---------------------|----------------------------------|----------------------|---|----------|------------------------|
| Developmental toxicity | NOAEL     | EPA OTS<br>798.4900 | 100 mg/kg<br>bw/day | 14 days<br>(gestation,<br>daily) | Rat                  | No effect   |          | Read-across            |
|                        | LOAEL     | EPA OTS<br>798.4900 | 600 mg/kg<br>bw/day | 14 days<br>(gestation,<br>daily) | Rat                  | Minor skeletal variations   | Skeleton | Read-across            |
| Maternal toxicity      | NOAEL     | Other               | 100 mg/kg<br>bw/day | 14 day(s)                        | Rat                  | No effect   |          | Read-across            |
|                        | LOAEL     | Other               | 600 mg/kg<br>bw/day | 14 day(s)                        | Rat                  | Clinical signs;<br>mortality; body<br>weight; food<br>consumption | General  | Read-across            |
| Effects on fertility   | NOAEL     | OECD 408            | 600 mg/kg<br>bw/day | 92 day(s)                        | Rat<br>(male/female) | No effect   |          | Read-across            |

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

|                        | Parameter | Method                 | Value                | Exposure time | Species              | Effect    | - 3 | Value<br>determination |
|------------------------|-----------|------------------------|----------------------|---------------|----------------------|-----------|-----|------------------------|
| Developmental toxicity |           |                        |                      |               |                      |           |     | Data waiving           |
| Maternal toxicity      |           |                        |                      |               |                      |           |     | Data waiving           |
| Effects on fertility   | NOAEL     | Equivalent to OECD 421 | ≥ 10 mg/kg<br>bw/day | / ( - /       | Rat<br>(male/female) | No effect |     | Experimental<br>value  |

dioctylbis(pentane-2,4-dionato-0,0')tin

|   | Parameter | Method | Value                                     | Exposure time | Species              | Effect    | - 3 | Value<br>determination |
|---|-----------|--------|---|---------------|----------------------|-----------|-----|------------------------|
| Developmental toxicity<br>(Oral (diet)) | NOAEL     |        | 0.3 mg/kg<br>bw/day - 0.5<br>mg/kg bw/day | 28 day(s)     | Rat                  | No effect |     | Experimental<br>value  |
| Maternal toxicity (Oral (diet))         | NOAEL     |        | 0.3 mg/kg<br>bw/day - 0.5<br>mg/kg bw/day | 28 day(s)     | Rat                  | No effect | ,   | Experimental<br>value  |
| Effects on fertility (Oral (diet))      | NOAEL     |        | 0.3 mg/kg<br>bw/day - 0.5<br>mg/kg bw/day | / ( - /       | Rat<br>(male/female) | No effect |     | Experimental<br>value  |

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|  |  |  |  |     |

|                        | Parameter    | Method                | Value                                     | Exposure time | Species              | Effect                                  | Organ  | Value<br>determination |
|------------------------|--------------|-----------------------|---|---------------|----------------------|---|--------|------------------------|
| Developmental toxicity | LOAEL        | EPA OPP 83-3          | 1.5 mg/kg<br>bw/day                       | 13 day(s)     | Rabbit (female)      | Increased post-<br>implantation<br>loss | Foetus | Experimental<br>value  |
|                        | NOAEL        | EPA OPP 83-3          | 0.5 mg/kg<br>bw/day                       | 13 day(s)     | Rabbit (female)      | No effect                               |        | Experimental value     |
| Maternal toxicity      | LOAEL        | EPA OPP 83-3          | 1.5 mg/kg<br>bw/day                       | 13 day(s)     | Rabbit (female)      | Weight changes                          |        | Experimental value     |
|                        | NOAEL        | EPA OPP 83-3          | 0.5 mg/kg<br>bw/day                       | 13 day(s)     | Rabbit (female)      | No effect                               |        | Experimental value     |
| Effects on fertility   | LOAEL (P/F1) | EPA OPPTS<br>870.3800 | 1.4 mg/kg<br>bw/day - 2.8<br>mg/kg bw/day |               |                      | Reproductive performance                |        | Experimental<br>value  |
|                        | NOAEL (P/F1) | EPA OPPTS<br>870.3800 | 0.7 - 1.4                                 |               | Rat<br>(male/female) | No effect                               |        | Experimental<br>value  |

# Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

Fix All Crystal

No (test)data on the mixture available

Chronic effects from short and long-term exposure

Fix All Crystal

No effects known.

# SECTION 12: Ecological information

# 12.1. Toxicity

## Fix All Crystal

No (test)data on the mixture available

Classification is based on the relevant ingredients

trimethoxyvinylsilane

|                                      |     | Parameter | Method             | Value  |      | Duration  | Species                             | Test design           | Fresh/salt | Value determination                             |
|--------------------------------------|-----|-----------|--------------------|--------|------|-----------|-------------------------------------|-----------------------|------------|---|
|                                      |     |           |                    |        |      |           |                                     |                       | water      |   |
| Acute toxicity fishes                |     | LC50      |                    | 191 m  | g/l  |           | Oncorhynchus<br>mykiss              |                       |            | Experimental value;<br>Nominal<br>concentration |
| Acute toxicity crustacea             |     |           | EU Method<br>C.2   | 168.7  | mg/l | 48 h      | Daphnia magna                       | Static system         |            | Experimental value;<br>GLP                      |
| Toxicity algae and other aquaplants  | tic | EC50      | EPA 67014-<br>73-0 | 210 m  | g/l  |           | Pseudokirchnerie<br>Ila subcapitata | Static system         |            | Experimental value;<br>Nominal<br>concentration |
| Long-term toxicity fish              |     |           |                    |        |      |           |                                     |                       |            | Data waiving                                    |
| Long-term toxicity aquatic crustacea |     | NOEC      | OECD 211           | 28.1 n | ng/l | 21 day(s) |                                     | Semi-static<br>system |            | Experimental value;<br>GLP                      |

3-(trimethoxysilyl)propylamine

|                                      |      | Parameter | Method           | Value                  | Duration | Species                    |                       | Fresh/salt<br>water | Value determination |
|--------------------------------------|------|-----------|------------------|------------------------|----------|----------------------------|-----------------------|---------------------|---------------------|
| Acute toxicity fishes                |      | LC50      | OECD 203         | > 934 mg/l             | 96 h     |                            | Semi-static<br>system | Fresh water         | Read-across; GLP    |
| Acute toxicity crustacea             |      | EC50      | OECD 202         | <mark>331 m</mark> g/l | 48 h     | Daphnia magna              | Static system         | Fresh water         | Read-across; GLP    |
| Toxicity algae and other aquaplants  | atic |           | EU Method<br>C.3 | > 1000 mg/l            | 72 h     | Desmodesmus<br>subspicatus | Static system         | Fresh water         | Read-across; GLP    |
| Toxicity aquatic micro-<br>organisms |      | EC50      | Other            | 43 mg/l                | 1,5      | Pseudomonas<br>putida      | Static system         | Fresh water         | Read-across; GLP    |

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|  | Parameter  | Method  |               | Duration   | yl]butylmalonate<br>Species  | Test design                                    | Fresh/salt<br>water   | Value determi                                |
|--|--|---|---------------|--|--|--|---|--|
| Acute toxicity fishes  | LC50   | OECD 203  | > 100 mg/l    | 96 h   | Danio rerio  | Semi-static                                    | Fresh water   | Experimental v                               |
| Toxicity algae and other aquatic   | EC50   | Other   | 61 mg/l       | 72 h   | Scenedesmus  | system<br>Static system                        | Fresh water   | GLP<br>Experimental v                        |
| plants<br>Long-term toxicity aquatic   | NOEC   | OECD 211  | 2 μg/l        | 21 day(s)  | subspicatus<br>Daphnia magna   | Semi-static                                    | Fresh water   | Biomass<br>Experimental v                    |
| crustacea Toxicity aquatic micro-  | IC50   | OECD 209  | > 100 mg/l    | 3 h  | Activated sludge   | system<br>Static system                        | Fresh water   | GLP<br>Experimental v                        |
| organisms octylbis(pentane-2,4-dionato-0,  |  | 1   |               |  |  |  |   |  |
| octylois(pentane-2,4-dionato-0,  | Parameter  | Method  | Value         | Duration   | Species  | Test design                                    | Fresh/salt<br>water   | Value determi                                |
| Acute toxicity fishes  | LC50   |   | 71.1 mg/l     | 96 h   | Salmo gairdneri  | Flow-through<br>system                         |   | Experimental v<br>Nominal<br>concentration   |
| Acute toxicity crustacea   | EC50   |   | 47.6 mg/l     | 48 h   | Daphnia magna  | Static system                                  | Fresh water   | Experimental v<br>Nominal<br>concentration   |
| Toxicity algae and other aquatic   | ErC50  | OECD 201  | 32 mg/l       | 72 h   | Desmodesmus<br>subspicatus   | Static system                                  | Fresh water   | Experimental v                               |
| Long-term toxicity fish  |  |   |               |  |  |  | 1   | Data waiving                                 |
| Long-term toxicity aquatic crustacea   |  |   |               |  |  |  |   | Data waiving                                 |
| rithione zinc  |  |   |               |  |  |  |   | l  |
|  | Parameter  | Method  | Value         | Duration   | Species  | Test design                                    | Fresh/salt<br>water   | Value determir                               |
| Acute toxicity fishes  | LC50   | OECD 203  | 0.0104 mg/l   | 96 h   | Brachydanio<br>rerio   |  |   | Experimental v                               |
| Acute toxicity crustacea   | EC50   | OECD 202  | 0.051 mg/l    | 48 h   | Daphnia magna  |  |   | Experimental v                               |
| Toxicity algae and other aqu <mark>atic</mark><br>plants   | EC50   | OECD 201  | 0.051 mg/l    | 72 h   | Pseudokirchnerie<br>lla subcapitata  |  |   | Experimental v                               |
|  | NOEC   | OECD 201  | 0.0149 mg/l   | 72 h   | Pseudokirchnerie<br>lla subcapitata  | :  |   | Experimental v                               |
| Long-term toxicity fish  | NOEC   | OECD 215  | 0.00125 mg/l  |  | Brachydanio<br>rerio   |  |   | Experimental v                               |
|  | NOEC   | OECD 211  | 0.00213 mg/l  | 21 day(s)  | Daphnia magna  |  |   | Experimental v                               |
| Long-term toxicity aquatic crustacea   |  | 0200 211  | 0.002131116/1 | ZI day(3)  | Dapinia magna  |  |   |  |
| crustacea Toxicity aquatic micro-  | EC50   | OECD 209  | 2.4 mg/l      | 3 h  | Activated sludge   | Static system                                  |   | Experimental vi<br>GLP                       |
| crustacea Toxicity aquatic micro- organisms  | EC50 ebatable as it                                      | OECD 209  | 2.4 mg/l      | 3 h  | Activated sludge   | Static system                                  |   |  |
| crustacea Toxicity aquatic micro- organisms M-factor of this substance is d aclusion armful to aquatic life with long la .2. Persistence and degra imethoxyvinylsilane   | EC50 ebatable as it                                      | OECD 209  | 2.4 mg/l      | 3 h  | Activated sludge<br>m the test   |  | lue determina   | GĹP  |
| crustacea Toxicity aquatic micro- organisms M-factor of this substance is d nclusion armful to aquatic life with long la 1.2. Persistence and degra imethoxyvinylsilane Biodegradation water   | ebatable as it asting effects.                           | OECD 209  does not corr                                 | 2.4 mg/l      | 3 h<br>onclusion fro                               | Activated sludge m the test  | Va   |   | GLP  |
| crustacea Toxicity aquatic micro- organisms M-factor of this substance is d nclusion armful to aquatic life with long la 1.2. Persistence and degra imethoxyvinylsilane Biodegradation water Method  | ebatable as it asting effects.  dability                 | OECD 209  does not corr                                 | 2.4 mg/l      | 3 h  onclusion fro                                 | Activated sludge m the test  | Va   | lue determina   | GLP  |
| crustacea Toxicity aquatic micro- organisms  M-factor of this substance is d nclusion armful to aquatic life with long la 1.2. Persistence and degra imethoxyvinylsilane Biodegradation water Method  OECD 301F: Manometric Resp   | ebatable as it asting effects.  dability                 | OECD 209  does not corr                                 | 2.4 mg/l      | Dura 28 da   | Activated sludge  m the test  tion ay(s)   | Va<br>Ex                                       | llue determina<br>perimental val  | ation<br>due                                 |
| crustacea Toxicity aquatic microorganisms M-factor of this substance is d nclusion armful to aquatic life with long la nclusion. 2. Persistence and degratimethoxyvinylsilane Biodegradation water Method OECD 301F: Manometric Resp Phototransformation air (DT50 Method  | ebatable as it asting effects.  dability                 | OECD 209  does not corr  Value  51 %; GLP               | 2.4 mg/l      | Dura 28 da   | Activated sludge  m the test  tion  ay(s)  | Va<br>Ex                                       | l <b>lue determin</b> a<br>perimental val   | ation<br>due                                 |
| crustacea Toxicity aquatic micro- organisms M-factor of this substance is d nclusion armful to aquatic life with long la 1.2. Persistence and degra imethoxyvinylsilane Biodegradation water Method OECD 301F: Manometric Resp Phototransformation air (DT50   | ebatable as it asting effects.  dability                 | Value Value Value                                       | 2.4 mg/l      | Dura 28 da  Conc 5000                              | Activated sludge  m the test  tion ay(s)  . OH-radicals 100 /cm³  ary  | Va<br>Ex<br>Va<br>Ca                           | llue determina<br>perimental val  | ation<br>lue                                 |
| crustacea Toxicity aquatic micro- organisms M-factor of this substance is d nclusion armful to aquatic life with long la ncetto a management of the substance of this substance is d nclusion armful to aquatic life with long la ncetto and degra imethoxyvinylsilane Biodegradation water Method  OECD 301F: Manometric Resp Phototransformation air (DT50 Method  Half-life water (t1/2 water) Method   | ebatable as it asting effects.  dability  pirometry Test | Value 0.56 day(s) VECU 209 Value                        | 2.4 mg/l      | Dura 28 da  Conc 5000  Prim degr                   | Activated sludge  m the test  tion ay(s)  . OH-radicals 100 /cm³  ary adation/mineralisa   | Va<br>Ex<br>Va<br>Ca<br>Va                     | llue determina<br>perimental val<br>llue determina<br>lculated value  | ation<br>due<br>ation                        |
| crustacea Toxicity aquatic micro- organisms  M-factor of this substance is d  nclusion armful to aquatic life with long la  2. Persistence and degra imethoxyvinylsilane Biodegradation water  Method  DECD 301F: Manometric Resp  Phototransformation air (DT50 Method  Half-life water (t1/2 water)  Method  DECD 111: Hydrolysis as a functoric function of the company of  | ebatable as it asting effects.  dability  pirometry Test | Value t 51 %; GLP  Value 0.56 day(s)                    | 2.4 mg/l      | Dura 28 da  Conc 5000  Prim degr                   | Activated sludge  m the test  tion ay(s)  . OH-radicals 100 /cm³  ary  | Va<br>Ex<br>Va<br>Ca<br>Va                     | llue determina<br>perimental val<br>llue determina<br>lculated value  | ation<br>due                                 |
| crustacea Toxicity aquatic micro- organisms  M-factor of this substance is d  nclusion armful to aquatic life with long la  2. Persistence and degratimethoxyvinylsilane Biodegradation water  Method  OECD 301F: Manometric Resp  Phototransformation air (DT50  Method  Half-life water (t1/2 water)  Method  OECD 111: Hydrolysis as a functimethoxysilyl)propylamine Biodegradation water  | ebatable as it asting effects.  dability  pirometry Test | Value 0.56 day(s)  Value < 2.4 h; pH =                  | 2.4 mg/l      | Dura 28 da  Conc 5000  Prim degr. Prim             | Activated sludge  m the test  tion ay(s)  . OH-radicals 100 /cm³  ary adation/mineralisa ary degradation   | Va<br>Ex<br>Va<br>Ca<br>Va<br>tion             | lue determina<br>perimental val<br>lue determina<br>lculated value<br>lue determina<br>eight of evider                                    | ation lue ation ation                        |
| crustacea Toxicity aquatic micro- organisms  M-factor of this substance is d nclusion armful to aquatic life with long la nclusion.  2. Persistence and degra imethoxyvinylsilane Biodegradation water  Method  OECD 301F: Manometric Resp Phototransformation air (DT50 Method  Half-life water (t1/2 water) Method  OECD 111: Hydrolysis as a function of the companies o | ebatable as it asting effects.  dability  pirometry Test | Value 0.56 day(s)  Value < 2.4 h; pH =                  | 2.4 mg/l      | Dura 28 da  Conc 5000  Prim degr. Prim Dura        | Activated sludge  The test  Tion  Tay(s)  The contraction of the contr | Va<br>Ex<br>Va<br>Ca<br>Va<br>tion             | lue determina<br>perimental val<br>lue determina<br>lculated value<br>lue determina<br>eight of evider                                    | ation ue ation ation ation                   |
| crustacea Toxicity aquatic micro- organisms  M-factor of this substance is d  nclusion armful to aquatic life with long la  2. Persistence and degratimethoxyvinylsilane Biodegradation water  Method  OECD 301F: Manometric Resp  Phototransformation air (DT50  Method  Half-life water (t1/2 water)  Method  OECD 111: Hydrolysis as a functimethoxysilyl)propylamine Biodegradation water  | ebatable as it asting effects.  dability  pirometry Test | Value 0.56 day(s)  Value < 2.4 h; pH =                  | 2.4 mg/l      | Dura 28 da  Conc 5000  Prim degr. Prim  Dura 28 da | Activated sludge  The test  tion  ay(s)  COH-radicals  100 /cm³  ary  adation/mineralisa  ary degradation  tion  ay(s)  ary  | Va<br>Ex<br>Va<br>Ca<br>Va<br>tion<br>Va<br>Ex | lue determina<br>perimental val<br>lue determina<br>lculated value<br>lue determina<br>eight of evider                                    | ation ue ation ation ation ation ation ation |
| crustacea Toxicity aquatic micro- organisms  M-factor of this substance is d nclusion armful to aquatic life with long la nclusion.  2. Persistence and degra imethoxyvinylsilane Biodegradation water  Method  OECD 301F: Manometric Resp Phototransformation air (DT50 Method  Half-life water (t1/2 water) Method  OECD 111: Hydrolysis as a function of the companies o | ebatable as it asting effects.  dability  pirometry Test | Value 0.56 day(s)  Value < 2.4 h; pH =  Value 67 %; GLP | 2.4 mg/l      | Dura 28 da  Conc 5000  Prim degr. Prim  Dura 28 da | Activated sludge  The test  Tion  Tay(s)  The contraction ary adation/mineralisation ary degradation  Tion   | Va<br>Ex<br>Va<br>Ca<br>tion<br>Va<br>Ex<br>Va | lue determina<br>perimental val<br>lue determina<br>lculated value<br>lue determina<br>eight of evider<br>lue determina<br>perimental val | ation ue ation ation ation ation ation       |
| crustacea Toxicity aquatic micro- organisms  M-factor of this substance is d nclusion armful to aquatic life with long la nclusion.  2. Persistence and degra imethoxyvinylsilane Biodegradation water  Method  OECD 301F: Manometric Resp Phototransformation air (DT50 Method  Half-life water (t1/2 water) Method  OECD 111: Hydrolysis as a function of the companies o | ebatable as it asting effects.  dability  pirometry Test | Value 0.56 day(s)  Value < 2.4 h; pH =  Value 67 %; GLP | 2.4 mg/l      | Dura 28 da  Conc 5000  Prim degr. Prim  Dura 28 da | Activated sludge  The test  tion ay(s)  C. OH-radicals 100 /cm³  ary adation/mineralisa ary degradation  tion ay(s)  ary adation/mineralisa  | Va<br>Ex<br>Va<br>Ca<br>tion<br>Va<br>Ex<br>Va | lue determina<br>perimental val<br>lue determina<br>lculated value<br>lue determina<br>eight of evider<br>lue determina<br>perimental val | ation ue ation ation ation ation ation       |

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| Method  |   | Value  |  | Duration   | Value determination  |
|---|---|--|--|--|--|
| OECD 301B: CO   | 2 Evolution Test  | 2 %  |  | 28 day(s)  | Experimental value   |
| octylbis(pentane-   | 2,4-dionato-O,O')tir  | 1  |  |  |  |
| Method  | vatei   | Value  |  | Duration   | Value determination  |
|   | nometric Respirome  |  |  | 28 day(s)  | Experimental value   |
| OLCD 3011 . IVIA  | nometric Respirome  | etry rest 19 %, GEF  |  | 20 uay(5)  | Experimental value   |
| vrithione zinc<br>Biodegradation w  | vater   | ·  |  |  |  |
| Method  |   | Value  |  | Duration   | Value determination  |
|   | 2 Evolution Test  | 39 %; GLP  |  | 28 day(s)  | Experimental value   |
| OECD 303A: Act  | tivated Slud <mark>ge Units</mark>  | ≥ 98.8 %; Act  | <mark>ivated</mark> sludge   | 35 day(s)  | Experimental value   |
|   | tion air (DT50 air)   |  |  | T  |  |
| Method  |   | Value  |  | Conc. OH-radicals  | Value determination  |
| AOPWIN  | L'accession (DTEO   | 8.69 h   |  |  | Calculated value   |
| Method  | tion water (DT50 w  | Value  |  | Conc. OH-radicals  | Value determination  |
| Other   |   | < 7 minutes  | _  | COIIC. On-Faultais   | Experimental value   |
| Half-life water (t1   | 1/2 water)  | 7 1111111111111111111111111111111111111  |  |  | Experimental value   |
| Method  | 172 water)  | Value  |  | Primary degradation/mineralisation   | Value determination  |
| EPA 161-1   |   | 7.4 day(s) - 1   | 2.9 day(s); GLP  | Primary degradation  | Experimental value   |
| .3. Bloaccumu<br><u>  Crystal</u><br>  Kow<br> ethod  | lative potential  |  | /alue  | Temporature  | Value determination  |
| ietnoa  | Remark  | icable (mixture)   | /alue  | Temperature  | Value determination  |
| imethoxyvinylsilar<br>Log Kow   | <u>nc</u>   |  |  |  |  |
| Log Kow<br>Method<br>KOWWIN   | Rem<br>Calcu  | ark<br>ulated  | Value<br>-2  | Temperature<br>20 °C   | Value determination<br>QSAR  |
| Log Kow<br>Method<br>KOWWIN<br>(trimethoxysilyl)p   | Rem<br>Calcu  |  |  |  |  |
| Log Kow<br>Method<br>KOWWIN<br>(trimethoxysilyl)p<br>Log Kow  | Rem<br>Calcu  | ılated   | -2   | 20 °C  | QSAR   |
| Log Kow<br>Method<br>KOWWIN<br>(trimethoxysilyl)p   | Rem<br>Calcu  | ılated   | -2<br>Value  | 20 °C Temperature  | QSAR  Value determination  |
| Log Kow Method KOWWIN (trimethoxysilyl)p Log Kow Method   | Rem Calcuropylamine Rem   | ark  | -2<br>Value<br>0.2   | 20 °C  Temperature 20 °C   | QSAR   |
| Log Kow Method KOWWIN (trimethoxysilyl)p Log Kow Method   | Rem Calcuropylamine Rem   | ark  | -2<br>Value<br>0.2   | 20 °C Temperature  | QSAR  Value determination  |
| Log Kow Method KOWWIN (trimethoxysilyl)p Log Kow Method s(1,2,2,6,6-pentar  | Rem Calcuropylamine Rem   | ark  | -2<br>Value<br>0.2   | 20 °C  Temperature 20 °C   | QSAR  Value determination  |
| Log Kow Method KOWWIN (trimethoxysilyl)p Log Kow Method s(1,2,2,6,6-pentar BCF fishes   | Rem Calcuropylamine  Rem methyl-4-piperidyl)  | ark<br>[3,5-bis(1,1-dimethyle  | Value 0.2 chyl)-4-hydroxypho   | Z0 °C  Temperature  20 °C  enyl]methyl]butylmalonate   | QSAR  Value determination  QSAR  |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  s(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow   | Rem Calcularopylamine  Rem methyl-4-piperidyl)  Method OECD 305   | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  | Z0 °C  Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio   | QSAR  Value determination  QSAR  Value determination  Experimental value   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method   | Rem   Calcuropylamine   Rem   methyl-4-piperidyl)   | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value   | Temperature 20 °C  20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature  | QSAR  Value determination QSAR  Value determination Experimental value  Value determination  |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107   | Rem Calcularopylamine  Rem methyl-4-piperidyl)  Method OECD 305   | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value 3.7   | Temperature 20 °C  20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C  | QSAR  Value determination QSAR  Value determination Experimental value  Value determination Experimental value   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117   | Rem Calcularopylamine  Rem methyl-4-piperidyl)  Method OECD 305   | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value 3.7 > 6.5                                       | Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C   | QSAR  Value determination QSAR  Value determination Experimental value  Value determination Experimental value Experimental value Experimental value   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  | Rem Calcuropylamine  Rem methyl-4-piperidyl)  Method OECD 305   | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  ark                                       | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value 3.7   | Temperature 20 °C  20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C  | QSAR  Value determination QSAR  Value determination Experimental value  Value determination Experimental value   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-   | Rem Calcularopylamine  Rem methyl-4-piperidyl)  Method OECD 305   | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  ark                                       | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value 3.7 > 6.5                                       | Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C   | QSAR  Value determination QSAR  Value determination Experimental value  Value determination Experimental value Experimental value Experimental value   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  | Rem Calcuropylamine  Rem methyl-4-piperidyl)  Method OECD 305   | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  ark                                       | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value 3.7 > 6.5                                       | Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C   | QSAR  Value determination QSAR  Value determination Experimental value  Value determination Experimental value Experimental value Experimental value   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  | Rem Calcuropylamine  Rem methyl-4-piperidyl)  Method OECD 305  Rem 2,4-dionato-0,0')tir                                 | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  ark                                       | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value 3.7 > 6.5 4.2                                   | Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C   | Value determination QSAR  Value determination Experimental value Experimental value Experimental value Experimental value Experimental value   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  | Rem Calcuropylamine  Rem methyl-4-piperidyl)  Method OECD 305  Rem 2,4-dionato-0,0')tir                                 | ark  [3,5-bis(1,1-dimethyle)  Value  24.3 - 437.1  ark                                       | Value 0.2 chyl)-4-hydroxypho Duration 60 day(s)  Value 3.7 > 6.5 4.2  Value                            | Z0 °C  Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C  Temperature                               | Value determination QSAR  Value determination Experimental value Experimental value Experimental value Experimental value Experimental value Value determination   |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  Method  Method  Method  CFC OTHER  Method  CFC OTHER  COT OF COT | Rem Calcuropylamine  Rem Method OECD 305  Rem 2,4-dionato-O,O')tir Rem C organisms                                      | ark [3,5-bis(1,1-dimethyle)  Value 24.3 - 437.1  ark   | -2   Value   0.2   Chyl)-4-hydroxypho   Duration   60 day(s)   Value   3.7   > 6.5   4.2   Value   0.6 | Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C 23 °C  Temperature 25 °C                          | Value determination QSAR  Value determination Experimental value Experimental value Experimental value Experimental value Experimental value Calculated  |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  Method  Method  Cotylbis(pentane-  Log Kow  Method  | Rem Calcuropylamine  Rem methyl-4-piperidyl)  Method OECD 305  Rem 2,4-dionato-O,O')tir  Rem c organisms                | ark [3,5-bis(1,1-dimethyle)  Value 24.3 - 437.1  ark  L  ark                                 | Value 0.2 chyl)-4-hydroxypho 60 day(s)  Value 3.7 > 6.5 4.2  Value 0.6                                 | Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C  Temperature 25 °C  Species                       | Value determination QSAR  Value determination Experimental value Experimental value Experimental value Experimental value Experimental value Calculated  Value determination Calculated  |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  Method  Method  Cog Kow  Method   | Rem Calcuropylamine  Rem Method OECD 305  Rem 2,4-dionato-O,O')tir Rem C organisms                                      | ark [3,5-bis(1,1-dimethyle)  Value 24.3 - 437.1  ark   | -2   Value   0.2   Chyl)-4-hydroxypho   Duration   60 day(s)   Value   3.7   > 6.5   4.2   Value   0.6 | Temperature 20 °C  enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C 23 °C  Temperature 25 °C                          | Value determination QSAR  Value determination Experimental value Experimental value Experimental value Experimental value Experimental value Calculated  |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  Method  Method  CFC OTTO  Method  Method  CFC OTTO  COTTO  COTTO | Rem Calcuropylamine  Rem Method OECD 305  Rem 2,4-dionato-O,O')tir Rem Corganisms Method OECD 305                       | Ilated  ark  [3,5-bis(1,1-dimethyle)  Value 24.3 - 437.1  ark  Value 7.87 - 11; Fresh weight | Value 0.2 chyl)-4-hydroxypho 60 day(s)  Value 3.7 > 6.5 4.2  Value 0.6  Duration 30 day(s)             | Temperature 20 °C enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C  23 °C  Temperature 25 °C  Species Crassostrea sp. | Value determination QSAR  Value determination Experimental value  Value determination Calculated  Value determination Experimental value |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  Method  prithione zinc  BCF other aquatic  Parameter  BCF  Log Kow  Method  | Rem Calcuropylamine  Rem methyl-4-piperidyl)  Method OECD 305  Rem 2,4-dionato-O,O')tir  Rem c organisms                | Ilated  ark  [3,5-bis(1,1-dimethyle)  Value 24.3 - 437.1  ark  Value 7.87 - 11; Fresh weight | Value 0.2 chyl)-4-hydroxypho 60 day(s)  Value 3.7 > 6.5 4.2  Value 0.6  Duration 30 day(s)             | Temperature 20 °C enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C 23 °C  Temperature 25 °C  Species Crassostrea sp.  | Value determination QSAR  Value determination Experimental value Value determination Calculated  Value determination Experimental value  |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  Other  octylbis(pentane-  Log Kow  Method  prithione zinc  BCF other aquatic  Parameter  BCF  Log Kow  Method  OECD 107  | Rem Calcuropylamine  Rem Method OECD 305  Rem 2,4-dionato-O,O')tir Rem Corganisms Method OECD 305                       | Ilated  ark  [3,5-bis(1,1-dimethyle)  Value 24.3 - 437.1  ark  Value 7.87 - 11; Fresh weight | Value 0.2 chyl)-4-hydroxypho 60 day(s)  Value 3.7 > 6.5 4.2  Value 0.6  Duration 30 day(s)             | Temperature 20 °C enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C  23 °C  Temperature 25 °C  Species Crassostrea sp. | Value determination QSAR  Value determination Experimental value  Value determination Calculated  Value determination Experimental value |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  Method  Parameter  BCF other aquatic  Parameter  BCF  Log Kow  Method  OECD 107  OCLO 107   | Rem Calculation (Calculation) Rem Method OECD 305  Rem 2,4-dionato-O,O')tir Rem Corganisms Method OECD 305              | Ilated  ark  [3,5-bis(1,1-dimethylethylethylethylethylethylethylethyl                        | Value 0.2 chyl)-4-hydroxypho 60 day(s)  Value 3.7 > 6.5 4.2  Value 0.6  Duration 30 day(s)             | Temperature 20 °C enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C 23 °C  Temperature 25 °C  Species Crassostrea sp.  | Value determination QSAR  Value determination Experimental value Value determination Calculated  Value determination Experimental value  |
| Log Kow  Method  KOWWIN  (trimethoxysilyl)p  Log Kow  Method  S(1,2,2,6,6-pentar  BCF fishes  Parameter  BCF  Log Kow  Method  OECD 107  OECD 117  Other  octylbis(pentane-  Log Kow  Method  Parameter  BCF other aquatic  Parameter  BCF  Log Kow  Method  OECD 107  OCLO 107   | Rem Calcuropylamine  Rem methyl-4-piperidyl)  Method OECD 305  Rem 2,4-dionato-O,O')tir  Rem Corganisms Method OECD 305 | Ilated  ark  [3,5-bis(1,1-dimethylethylethylethylethylethylethylethyl                        | Value 0.2 chyl)-4-hydroxypho 60 day(s)  Value 3.7 > 6.5 4.2  Value 0.6  Duration 30 day(s)             | Temperature 20 °C enyl]methyl]butylmalonate  Species Cyprinus carpio  Temperature 23 °C 23 °C 23 °C 23 °C  Temperature 25 °C  Species Crassostrea sp.  | Value determination QSAR  Value determination Experimental value Value determination Calculated  Value determination Experimental value  |

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# trimethoxyvinylsilane (log) Koc Parameter Method Value Value determination Data waiving Volatility (Henry's Law constant H) Value Method Temperature Remark Value determination

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

(log) Koc

8.72E-5 atm m<sup>3</sup>/mol

 Parameter
 Method
 Value
 Value determination

 log Koc
 SRC PCKOCWIN v2.0
 3.04 - 8.1
 Calculated value

Estimated value

pyrithione zinc

(log) Koc

 Parameter
 Method
 Value
 Value determination

 Koc
 OECD 106
 1700 - 25000
 Experimental value

 log Koc
 3.2 - 4.4
 Calculated value

Volatility (Henry's Law constant H)

| Value              | Method | Temperature | Remark | Value determination |
|--------------------|--------|-------------|--------|---------------------|
| < 0.5E-4 Pa.m³/mol |        |             |        | Calculated value    |

#### Conclusion

Contains component(s) that adsorb(s) into the soil

#### 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

25 °C

## 12.6. Other adverse effects

Fix All Crystal

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

3-(trimethoxysilyl)propylamine

Groundwater

Groundwater pollutant

# SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

#### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

#### **European Union**

Hazardous waste acco<mark>rding to Directive 2008/98/EC, as ame</mark>nded by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 09\* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

# 13.1.3 Packaging/Container

#### **European Union**

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

# SECTION 14: Transport information

# Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

| 14.1. ON Hamber                                |             |
|--|-------------|
| Transport                                      | Not subject |
| 14.2. UN proper shipping name                  |             |
| 14.3. Transport hazard class( <mark>es)</mark> |             |
|  |             |

Hazard identification number
Class
Classification code

14.4. Packing group

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Date of revision: 2018-11-29

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| Packing group   |   |
|---|---|
| Labels  |   |
| 14.5. Environmental hazards   |   |
| Environmentally hazardous substance mark                            | no                                      |
| 14.6. Special precautions for user                                  |   |
| Special provisions  |   |
| Limited quantities  |   |
| 14.7. Transport in bulk according to Annex II of Marpol and the IBC | Code                                    |
| Annex II of MARPOL 73/78  | Not applicable, based on available data |

# SECTION 15: Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture **European legislation:**

VOC content Directive 2010/75/EU

| VOC content | Remark |  |
|-------------|--------|--|
| 4.6 %       |        |  |
| 48.4 g/l    |        |  |

## REACH Annex XVII - Restriction

| and use of certain dangero              | us substances, mixtures and articles                        | ts.   |
|---|---|---|
|   | Designation of the substance, of the                        | e group of Conditions of restriction  |
|   | substances or of the mixture                                |   |
| trimethoxyvinylsilane                   | Liquid substances or mixtures which                         | th are 1. Shall not be used in:   |
| 3-(trimethoxysilyl)propylamine          | regarded as dangerous in accordance                         |   |
| dioctylbis(pentane-2,4-dionato-O,O')tin | Directive 1999/45/EC or are fulfilling                      | ng the phases, for example in ornamental lamps and ashtrays,  |
|   | criteria for any of the following haza                      |   |
|   | or categories set out in Annex I to R<br>(EC) No 1272/2008: | Regulation — games for one or more participants, or any article intended to be used as such, eve<br>ornamental aspects, |
|   | (a) hazard classes 2.1 to 2.4, 2.6 and                      |   |
|   |   | categories 13. Shall not be placed on the market if they contain a colouring agent, unless required                     |
|   | and 2, 2.14 categories 1 and 2, 2.15                        |   |
|   | E.  | — can be used as fuel in decorative oil lamps for supply to the general public, and,                                    |
|   | (b) hazard classes 3.1 to 3.6, 3.7 adv                      |   |
|   | effects on sexual function and fertili                      |   |
|   | development, 3.8 effects other than                         |   |
|   | effects, 3.9 and 3.10;                                      | by the European Committee for Standardisation (CEN).  |
|   | (c) hazard class 4.1;                                       | 5. Without prejudice to the implementation of other Community provisions relating to                                    |
|   | (d) hazard class 5.1.                                       | classification, packaging and labelling of dangerous substances and mixtures, suppliers                                 |
|   | (4) 114241 4 61433 3121                                     | ensure, before the placing on the market, that the following requirements are met:                                      |
|   |   | a) lamp oils, labelled with R65 or H304, intended for supply to the general public are v                                |
|   |   | legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the re                              |
|   |   | children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick                                  |
|   |   | lamps — may lead to life- threatening lung damage";   |
|   |   | b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general pub                              |
|   |   | legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter                                |
|   |   | lead to life threatening lung damage";  |
|   |   | c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the ger                              |
|   |   | public are packaged in black opaque containers not exceeding 1 litre by 1 December 2                                    |
|   |   | 6. No later than 1 June 2014, the Commission shall request the European Chemicals A                                     |
|   |   | to prepare a dossier, in accordance with Article 69 of the present Regulation with a vie                                |
|   |   | ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H3                             |
|   |   | intended for supply to the general public.  |
|   |   | 7. Natural or legal persons placing on the market for the first time lamp oils and grill li                             |
|   |   | fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter,                                   |
|   |   | provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to                              |
|   |   | competent authority in the Member State concerned. Member States shall make those                                       |
|   |   | available to the Commission.'   |
|   |   |   |
| dioctylbis(pentane-2,4-dionato-O,O')tin | Organostannic compounds                                     | 1. Shall not be placed on the market, or used, as substances or in mixtures where the                                   |
|   |   | substance or mixture is acting as biocide in free association paint.  |
|   |   | 2. Shall not be placed on the market, or used, as substances or in mixtures where the                                   |
|   |   | substance or mixture acts as biocide to prevent the fouling by micro-organisms, plants                                  |
|   |   | animals of:   |
|   |   | (a) all craft irrespective of their length intended for use in marine, coastal, estuarine a                             |
|   |   | inland waterways and lakes;   |
|   |   | (b) cages, floats, nets and any other appliances or equipment used for fish or shellfish                                |
|   |   | farming;  |
|   |   | (c) any totally or partly submerged appliance or equipment.   |
|   |   | 3. Shall not be placed on the market, or used, as substances or in mixtures where the                                   |
|   |   | substance or mixture is intended for use in the treatment of industrial waters.   |
|   |   | 4. Tri-substituted organostannic compounds:   |
|   |   | a) Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and                                      |
|   |   | triphenyltin (TPT) compounds shall not be used after 1 July 2010 in articles where the                                  |
|   |   | concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by                               |
|   |   | weight of tin. b) Articles not complying with point (a) shall not be placed on the market after 1 July                  |
|   |   |   |
| son for revision: 3.2                   |   | Publication date: 2015-01-06  |
|   |   |   |

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|  |  | J  |
|--|--|--|
| · trimethoxyvinylsilane  | Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not. | 2010, except for articles that were already in use in the Community before that date.  S. Dibutyltin (DBT) compounds: a) Dibutyltin (DBT) compounds shall not be used after 1 January 2012 in mixtures and articles for supply to the general public where the concentration in the mixture or the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin. b) Articles and mixtures not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date. c) By way of derogation, points (a) and (b) shall not apply until 1 January 2015 to the following articles and mixtures for supply to the general public: |
|  |  |  |
| <u>National legislation Belgium</u><br><u>Fix All Crystal</u><br>No data available |  |  |
|  | orate O Olitic   |  |
| dioctylbis(pentane-2,4-dio   |  | n); D; La mention "D" signifie que la résorption de l'agent, via la peau, les  |
| nesor priori peda  | muqueuses ou les yeux, constitue une   | partie importante de l'exposition totale. Cette résorption peut se faire tant par  |
|  | contact direct que par présence de l'ag  | gent uans raif.  |
| National legislation The Neth  | nerlands   |  |
| <u>Fix All Crystal</u><br>No data available  |  |  |
| National legislation France  |  |  |
| Fix All Crystal  |  |  |
| No data available  |  |  |
| National legislation Germany   | Y  |  |
| Fix All Crystal  |  |  |
| WGK  |  | on the components in compliance with Verwaltungsvorschrift wassergefährdender  |
|  | Stoffe (VwVwS) of 27 July 2005 (Anhan<br>(AwSV) of 18 April 2017   | ng 4) and Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen  |
| <u>trimethoxyvinylsilane</u>   | ( , c. 10 / p. 11 201 /  |  |
| TA-Luft  | 5.2.5  |  |
| Decree from 11 and   |  | D. H. W. L. COST OF OC   |
| Reason for revision: 3.2   |  | Publication date: 2015-01-06   |
|  |  | Date of revision: 2018-11-29   |
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| 3-(trimethoxysilyl)propy                | <u>lamine</u> |                                   |            |           |             |        |        |  |  |
|---|---------------|-----------------------------------|------------|-----------|-------------|--------|--------|--|--|
| TA-Luft                                 |               | 5.2.5                             |            |           |             |        |        |  |  |
| bis(1,2,2,6,6-pentameth                 | yl-4-pipe     | eridyl) [[3,5-bis(1,1-dimethyleth | yl)-4-hydr | roxypheny | l]methyl]bu | tylmal | onate_ |  |  |
| TA-Luft                                 |               | 5.2.1                             |            |           |             |        |        |  |  |
| dioctylbis(pentane-2,4-dionato-O,O')tin |               |                                   |            |           |             |        |        |  |  |
| TA-Luft                                 |               | 5.2.5; I                          |            |           |             |        |        |  |  |
| pyrithione zinc                         |               |                                   |            |           |             |        |        |  |  |
| TA-Luft                                 |               | 5.2.1                             |            |           |             |        |        |  |  |

# National legislation United Kingdom

Fix All Crystal

No data available

dioctylbis(pentane-2,4-dionato-0,0')tin

Skin absorption Tin compounds, organic, except Cyhexatin (ISO), (as Sn); Sk

#### Other relevant data

Fix All Crystal

No data available

dioctylbis(pentane-2,4-dionato-0,0')tin

| TLV - Carcinogen | Tin organic compounds, as Sn; A4                                   |
|------------------|--|
| Skin absorption  | Tin organic compounds, as Sn; Skin; Danger of cutaneous absorption |

#### 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

# SECTION 16: Other information

# Full text of any H-statements referred to under heading 3:

- H226 Flammable liquid and vapour.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H332 Harmful if inhaled.
- H371 May cause damage to organs (immune system) if swallowed.
- H372 Causes damage to organs (liver, lymph nodes, spleen) through prolonged or repeated exposure.
- H373 May cause damage to organs (immune system) through prolonged or repeated exposure if swallowed.
- 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.

| (* | INTERNAL CLASSIFICATION BY BIG |
|----|--------------------------------|
|    |                                |

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

DMEL Derived Minimal Effect Level
DNEL Derived No Effect Level
EC50 Effect Concentration 50 %

ErC50 EC50 in terms of reduction of growth rate

LC50 Lethal Concentration 50 % LD50 Lethal Dose 50 %

NOAEL No Observed Adverse Effect Level

NOEC No Observed Effect Concentration

OECD Organisation for Economic Co-operation and Development

PBT Persistent, Bioaccumulative & Toxic
PNEC Predicted No Effect Concentration
STP Sludge Treatment Process

vPvB very Persistent & very Bioaccumulative

#### M-factor

|                 | yl-4-piperidyl) [[3,5-bis(1,1-<br>yphenyl]methyl]butylmalonate | 10 | Chronic | ECHA                                      |
|-----------------|--|----|---------|---|
| pyrithione zinc |  | 10 | Acute   | Customer information<br>THOR (2014-10-27) |
| pyrithione zinc |  | 1  | Chronic | Customer information<br>THOR (2014-10-27) |

### Specific concentration limits CLP

| dioctylbis(pentane-2,4-di <mark>onato-0,0')tin</mark> | C > 5 % | Skin Sens. 1; H317 | TIB Chemicals |
|---|---------|--------------------|---------------|
|   |         |                    |               |

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption,

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storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet has been elaborated for use within the European Union, Switzerland, Iceland, Norway and Lichtenstein. It may be consulted in other countries, where local legislation with regards to the set-up of safety data sheets will take precedence. It is your obligation to verify and apply such local legislation. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.



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