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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 30.09.2022 / 0019  
Replacing version dated / version: 14.04.2022 / 0018  
Valid from: 30.09.2022  
PDF print date: 01.10.2022  
Thick Film Lacquer 4-in-1 Carmine red RAL 3002 L222  
400 ml Art.: 6210 2404, Art.: 6214 2404

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

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

#### 1.1 Product identifier

**Thick Film Lacquer 4-in-1 Carmine red RAL 3002 L222**  
**400 ml Art.: 6210 2404, Art.: 6214 2404**

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

**Relevant identified uses of the substance or mixture:**

Lacquer spray

**Uses advised against:**

No information available at present.

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

Theo Förch GmbH & Co. KG  
Theo-Förch-Str. 11 – 15  
74196 Neuenstadt  
Tel.: 07139/95-0  
Fax: 07139/95-199  
Email: [info@foerch.de](mailto:info@foerch.de)  
Homepage: [www.foerch.com](http://www.foerch.com)

Details of the supplier of the safety data sheet see section 16 of this safety data sheet.

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

#### 1.4 Emergency telephone number

**Emergency information services / official advisory body:**

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**Telephone number of the company in case of emergencies:**

+49 (0) 700 / 24 112 112 (TFC)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

| Hazard class    | Hazard category | Hazard statement  |
|-----------------|-----------------|---|
| Eye Irrit.      | 2               | H319-Causes serious eye irritation.                     |
| STOT SE         | 3               | H336-May cause drowsiness or dizziness.                 |
| Aquatic Chronic | 3               | H412-Harmful to aquatic life with long lasting effects. |
| Aerosol         | 1               | H222-Extremely flammable aerosol.                       |
| Aerosol         | 1               | H229-Pressurised container: May burst if heated.        |

#### 2.2 Label elements

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

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Danger

H319-Causes serious eye irritation. H336-May cause drowsiness or dizziness. H412-Harmful to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P261-Avoid breathing vapours or spray. P273-Avoid release to the environment. P280-Wear eye protection / face protection.  
 P312-Call a POISON CENTRE / doctor if you feel unwell.  
 P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

EUH066-Repeated exposure may cause skin dryness or cracking.

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

Without adequate ventilation, formation of explosive mixtures may be possible.

n-butyl acetate

Acetone

2-methoxy-1-methylethyl acetate

## 2.3 Other hazards

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

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

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

Dangerous vapours heavier than air.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

n.a.

### 3.2 Mixtures

| Acetone  | Substance for which an EU exposure limit value applies.               |
|--|---|
| Registration number (REACH)  | 01-2119471330-49-XXXX   |
| Index  | 606-001-00-8  |
| EINECS, ELINCS, NLP, REACH-IT List-No.                                 | 200-662-2   |
| CAS  | 67-64-1   |
| content %  | 20-30   |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | EUH066<br>Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |

| Dimethyl ether   | Substance for which an EU exposure limit value applies. |
|--|---|
| Registration number (REACH)  | 01-2119472128-37-XXXX                                   |
| Index  | 603-019-00-8  |
| EINECS, ELINCS, NLP, REACH-IT List-No.                                 | 204-065-8   |
| CAS  | 115-10-6  |
| content %  | 10-20   |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Flam. Gas 1A, H220                                      |

| n-butyl acetate | Substance for which an EU exposure limit value applies. |
|-----------------|---|
|-----------------|---|

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|   |   |
|---|---|
| <b>Registration number (REACH)</b>  | 01-2119485493-29-XXXX                           |
| <b>Index</b>  | 607-025-00-1                                    |
| <b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>                                 | 204-658-1                                       |
| <b>CAS</b>  | 123-86-4  |
| <b>content %</b>  | 10-20   |
| <b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b> | EUH066<br>Flam. Liq. 3, H226<br>STOT SE 3, H336 |

|   |  |
|---|--|
| <b>Reaction mass of ethylbenzene and xylene</b>                               | <b>Substance for which an EU exposure limit value applies.</b>   |
| <b>Registration number (REACH)</b>  | 01-2119488216-32-XXXX  |
| <b>Index</b>  | ---  |
| <b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>                                 | 905-588-0  |
| <b>CAS</b>  | ---  |
| <b>content %</b>  | 1-<10  |
| <b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b> | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>STOT RE 2, H373 (organs of hearing)<br>Asp. Tox. 1, H304 |

|   |  |
|---|--|
| <b>2-methoxy-1-methylethyl acetate</b>  | <b>Substance for which an EU exposure limit value applies.</b> |
| <b>Registration number (REACH)</b>  | ---  |
| <b>Index</b>  | 607-195-00-7   |
| <b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>                                 | 203-603-9  |
| <b>CAS</b>  | 108-65-6   |
| <b>content %</b>  | 1-<10  |
| <b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b> | Flam. Liq. 3, H226<br>STOT SE 3, H336                          |

|   |  |
|---|--|
| <b>Ethanol</b>  |  |
| <b>Registration number (REACH)</b>  | ---                                      |
| <b>Index</b>  | 603-002-00-5                             |
| <b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>                                 | 200-578-6                                |
| <b>CAS</b>  | 64-17-5                                  |
| <b>content %</b>  | 1-<5                                     |
| <b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b> | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319 |
| <b>Specific Concentration Limits and ATE</b>                                  | Eye Irrit. 2, H319: >=50 %               |

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

|   |  |
|---|--|
| <b>Trizinc bis(orthophosphate)</b>  |  |
| <b>Registration number (REACH)</b>  | ---  |
| <b>Index</b>  | 030-011-00-6   |
| <b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>                                 | 231-944-3  |
| <b>CAS</b>  | 7779-90-0  |
| <b>content %</b>  | 1-<2,5   |
| <b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b> | Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1) |

|   |     |
|---|-----|
| <b>Alcohols, C12-14, ethoxylated</b>          |     |
| <b>Registration number (REACH)</b>            | --- |
| <b>Index</b>                                  | --- |
| <b>EINECS, ELINCS, NLP, REACH-IT List-No.</b> | --- |

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|   |   |
|---|---|
| <b>CAS</b>  | ---   |
| <b>content %</b>  | 0,1-<1  |
| <b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b> | Eye Dam. 1, H318<br>Aquatic Acute 1, H400 (M=1) |

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.  
 For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.  
 The substances named in this section are given with their actual, appropriate classification!  
 For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!  
 Never pour anything into the mouth of an unconscious person!

#### Inhalation

Remove person from danger area.  
 Supply person with fresh air and consult doctor according to symptoms.  
 If the person is unconscious, place in a stable side position and consult a doctor.

#### Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

#### Eye contact

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

#### Ingestion

Rinse the mouth thoroughly with water.  
 Give copious water to drink - consult doctor immediately.

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

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

The following may occur:

- Irritation of the respiratory tract
- Headaches
- Dizziness
- Nausea
- Effects/damages the central nervous system
- Coordination disorders
- Unconsciousness
- With long-term contact:  
 Product removes fat.
- Dermatitis (skin inflammation)

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

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

Symptomatic treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

- Sand
- CO2
- Extinction powder

#### Unsuitable extinguishing media

- Water
- High volume water jet

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

In case of fire the following can develop:

- Oxides of carbon
- Oxides of nitrogen
- Toxic gases
- Danger of bursting (explosion) when heated

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Explosive vapour/air or gas/air mixtures.

### **5.3 Advice for firefighters**

For personal protective equipment see Section 8.  
In case of fire and/or explosion do not breathe fumes.  
Protective respirator with independent air supply.  
Cool container at risk with water.  
Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

#### **6.1.1 For non-emergency personnel**

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.  
Ensure sufficient ventilation, remove sources of ignition.  
Avoid dust formation with solid or powder products.  
Leave the danger zone if possible, use existing emergency plans if necessary.  
Remove possible causes of ignition - do not smoke.  
Ensure sufficient supply of air.  
Avoid inhalation, and contact with eyes or skin.

#### **6.1.2 For emergency responders**

See section 8 for suitable protective equipment and material specifications.

### **6.2 Environmental precautions**

If leakage occurs, dam up.  
Resolve leaks if this possible without risk.  
Prevent from entering drainage system.  
Prevent surface and ground-water infiltration, as well as ground penetration.  
If accidental entry into drainage system occurs, inform responsible authorities.

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

If spray or gas escapes, ensure ample fresh air is available.  
Active substance:  
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.  
Do not wash away with water or watery cleaning agents.

### **6.4 Reference to other sections**

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

## **SECTION 7: Handling and storage**

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

### **7.1 Precautions for safe handling**

#### **7.1.1 General recommendations**

Ensure good ventilation.  
Room ventilation also at ground level.  
Keep away from sources of ignition - Do not smoke.  
Take precautions against electrostatic charges.  
Do not use on hot surfaces.  
Avoid inhalation of the vapours.  
Avoid contact with eyes or skin.  
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.  
Observe directions on label and instructions for use.  
Use working methods according to operating instructions.

#### **7.1.2 Notes on general hygiene measures at the workplace**

General hygiene measures for the handling of chemicals are applicable.  
Wash hands before breaks and at end of work.  
Keep away from food, drink and animal feedingstuffs.  
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

### **7.2 Conditions for safe storage, including any incompatibilities**

Keep out of access to unauthorised individuals.  
Store product closed and only in original packing.  
Not to be stored in gangways or stair wells.  
Observe special regulations for aerosols!  
Observe special storage conditions.

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Do not store with flammable or self-igniting materials.  
 Keep protected from direct sunlight and temperatures over 50°C.  
 Store cool.  
 Store in a well ventilated place.  
 Store in a dry place.

### 7.3 Specific end use(s)

No information available at present.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

| GB | Chemical Name  | Acetone  |  |     |
|----|--|--|--|-----|
|    | WEL-TWA: 500 ppm (1210 mg/m <sup>3</sup> ) (WEL, EU)   | WEL-STEL: 1500 ppm (3620 mg/m <sup>3</sup> ) (WEL)   |  | --- |
|    | Monitoring procedures:   | <ul style="list-style-type: none"> <li>- Draeger - Acetone 100/b (CH 22 901)</li> <li>- Draeger - Acetone 40/a (5) (81 03 381)</li> <li>- Compur - KITA-102 SA (548 534)</li> <li>- Compur - KITA-102 SC (548 550)</li> <li>- Compur - KITA-102 SD (551 109)</li> <li>- INSHT MTA/MA-031/A96 (Determination of ketones (acetone, methyl ethyl ketone, methyl isobutyl ketone) in air - Charcoal tube method / Gas chromatography) - 1996 - EU project BC/CEN/ENTR/000/2002-16 card 67-1 (2004)</li> <li>- MDHS 72 (Volatile organic compounds in air – Laboratory method using pumped solid sorbent tubes, thermal desorption and gas chromatography) - 1993</li> <li>- NIOSH 1300 (KETONES I) - 1994</li> <li>- NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996</li> <li>- NIOSH 2555 (KETONES I) - 2003</li> <li>- NIOSH 3800 (ORGANIC AND INORGANIC GASES BY EXTRACTIVE FTIR SPECTROMETRY) - 2016</li> <li>- OSHA 69 (Acetone) - 1988</li> </ul> |  |     |
|    | BMGV: ---  | Other information: ---   |  |     |
| GB | Chemical Name  | Dimethyl ether   |  |     |
|    | WEL-TWA: 400 ppm (766 mg/m <sup>3</sup> ) (WEL), 1000 ppm (1920 mg/m <sup>3</sup> ) (EU)   | WEL-STEL: 500 ppm (958 mg/m <sup>3</sup> ) (WEL)   |  | --- |
|    | Monitoring procedures:   | - Compur - KITA-123 S (549 129)  |  |     |
|    | BMGV: ---  | Other information: ---   |  |     |
| GB | Chemical Name  | n-butyl acetate  |  |     |
|    | WEL-TWA: 150 ppm (724 mg/m <sup>3</sup> ) (WEL), 50 ppm (241 mg/m <sup>3</sup> ) (EU)  | WEL-STEL: 200 ppm (966 mg/m <sup>3</sup> ) (WEL), 150 ppm (723 mg/m <sup>3</sup> ) (EU)  |  | --- |
|    | Monitoring procedures:   | <ul style="list-style-type: none"> <li>- Compur - KITA-138 U (548 857)</li> <li>- Compur - KITA-139 SB(C) (549 731)</li> <li>- NIOSH 1450 (ESTERS 1) - 2003</li> <li>- NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996</li> <li>- OSHA 1009 (n-Butyl Acetate Isobutyl Acetate sec-Butyl Acetate tert-Butyl Acetate) - 2007</li> </ul>   |  |     |
|    | BMGV: ---  | Other information: ---   |  |     |
| GB | Chemical Name  | Reaction mass of ethylbenzene and xylene   |  |     |
|    | WEL-TWA: 220 mg/m <sup>3</sup> (50 ppm) (WEL), 50 ppm (221 mg/m <sup>3</sup> ) (EU) (Xylene), 100 ppm (441 mg/m <sup>3</sup> ) (WEL), 100 ppm (442 mg/m <sup>3</sup> ) (EU) (Ethylbenzene) | WEL-STEL: 100 ppm (441 mg/m <sup>3</sup> ) (WEL), 100 ppm (442 mg/m <sup>3</sup> ) (EU) (Xylene), 125 ppm (552 mg/m <sup>3</sup> ) (WEL), 200 ppm (884 mg/m <sup>3</sup> ) (EU) (Ethylbenzene)   |  | --- |
|    | Monitoring procedures:   | <ul style="list-style-type: none"> <li>- INSHT MTA/MA-030/A92 (Determination of aromatic hydrocarbons (benzene, toluene, ethylbenzene, p-xylene, 1,2,4-trimethylbenzene) in air - Charcoal tube method / Gas chromatography) - 1992 - EU project BC/CEN/ENTR/000/2002-16 card 47-1 (2004)</li> <li>- OSHA 1002 (Xylenes (o-, m-, p-isomers) Ethylbenzene) - 1999</li> <li>- INSHT MTA/MA-030/A92 (Determination of aromatic hydrocarbons (benzene, toluene, ethylbenzene, p-xylene, 1,2,4-trimethylbenzene) in air - Charcoal tube method / Gas chromatography) - 1992 - EU project BC/CEN/ENTR/000/2002-16 card 54-1 (2004)</li> <li>- OSHA 1020 (Trimethylbenzene (mixed isomers)) - 2016</li> <li>- OSHA PV2091 (Trimethylbenzenes) - 1987</li> <li>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> <li>- Draeger - Hydrocarbons 2/a (81 03 581)</li> </ul>  |  |     |
|    | BMGV: 650 mmol methyl hippuric acid/mol creatinine in urine, post shift (Xylene, o-, m-, p- or mixed isomers) (BMGV) (Xylene)  | Other information: Sk (WEL) (Xylene), Sk (WEL) (Ethylbenzene)  |  |     |

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| Chemical Name  |   | 2-methoxy-1-methylethyl acetate  |     |
|--|---|--|-----|
| WEL-TWA: 50 ppm (274 mg/m <sup>3</sup> ) (WEL), 50 ppm (275 mg/m <sup>3</sup> ) (EU) | WEL-STEL: 100 ppm (548 mg/m <sup>3</sup> ) (WEL), 100 ppm (550 mg/m <sup>3</sup> ) (EU) | ---  | --- |
| Monitoring procedures:   |   | INSHT MTA/MA-024/A92 (Determination of esters II (1-methoxy-2-propyl acetate, 2-ethoxyethyl acetate) in air - Charcoal tube method / Gas chromatography) - 1992 - EU project BC/CEN/ENTR/000/2002-16 card 15-1 (2004)<br>- NIOSH 2554 (GLYCOL ETHERS) - 2003<br>- OSHA 99 (Propylene Glycol Monomethyl Ethers/Acetates) - 1993 |     |
| BMGV: ---  |   | Other information: Sk (WEL)  |     |

| Chemical Name                               |               | Ethanol   |     |
|---|---------------|---|-----|
| WEL-TWA: 1000 ppm (1920 mg/m <sup>3</sup> ) | WEL-STEL: --- | ---   | --- |
| Monitoring procedures:                      |               | - Draeger - Alcohol 25/a Ethanol (81 01 631)<br>- Compur - KITA-104 SA (549 210)<br>DFG (D) (Loesungsmittelgemische), Methode Nr. 6 DFG (E) (Solvent mixtures) - 2013, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)<br>DFG Meth. Nr. 2 (D) (Loesungsmittelgemische) - 2013 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)<br>DFG Meth. Nr. 3 (D) (Loesungsmittelgemische) - 2013 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004) |     |
| BMGV: ---                                   |               | Other information: ---  |     |

| Chemical Name   |               | Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm) |     |
|---|---------------|--|-----|
| WEL-TWA: 10 mg/m <sup>3</sup> (total inhalable dust), 4 mg/m <sup>3</sup> (respirable dust) | WEL-STEL: --- | ---  | --- |
| Monitoring procedures: ---  |               | ---  |     |
| BMGV: ---   |               | Other information: ---   |     |

| Chemical Name                              |   | Butane  |     |
|--|---|---|-----|
| WEL-TWA: 600 ppm (1450 mg/m <sup>3</sup> ) | WEL-STEL: 750 ppm (1810 mg/m <sup>3</sup> ) | ---   | --- |
| Monitoring procedures:                     |   | - Compur - KITA-221 SA (549 459)<br>- OSHA PV2010 (n-Butane) - 1993 |     |
| BMGV: ---                                  |   | Other information: ---  |     |

| Chemical Name             |               | Propane  |     |
|---------------------------|---------------|--|-----|
| WEL-TWA: 1000 ppm (ACGIH) | WEL-STEL: --- | ---  | --- |
| Monitoring procedures:    |               | - Compur - KITA-125 SA (549 954)<br>- OSHA PV2077 (Propane) - 1990 |     |
| BMGV: ---                 |               | Other information: ---   |     |

| Chemical Name                  |               | Isobutane                           |     |
|--------------------------------|---------------|-------------------------------------|-----|
| WEL-TWA: 1000 ppm (EX) (ACGIH) | WEL-STEL: --- | ---                                 | --- |
| Monitoring procedures:         |               | - Compur - KITA-113 SB(C) (549 368) |     |
| BMGV: ---                      |               | Other information: ---              |     |

| Acetone             |   |                             |            |       |              |                            |
|---------------------|---|-----------------------------|------------|-------|--------------|----------------------------|
| Area of application | Exposure route / Environmental compartment    | Effect on health            | Descriptor | Value | Unit         | Note                       |
|                     | Environment - marine                          |                             | PNEC       | 1,06  | mg/l         | Assesment factor 500       |
|                     | Environment - freshwater                      |                             | PNEC       | 10,6  | mg/l         | Assesment factor 50        |
|                     | Environment - sediment, freshwater            |                             | PNEC       | 30,4  | mg/kg dw     |                            |
|                     | Environment - sediment, marine                |                             | PNEC       | 3,04  | mg/kg dw     |                            |
|                     | Environment - soil                            |                             | PNEC       | 29,5  | mg/kg dw     |                            |
|                     | Environment - sewage treatment plant          |                             | PNEC       | 19,5  | mg/l         |                            |
|                     | Environment - sporadic (intermittent) release |                             | PNEC       | 21    | mg/l         | Assesment factor 100       |
| Consumer            | Human - oral                                  | Long term, systemic effects | DNEL       | 62    | mg/kg bw/day | Overall assesment factor 2 |

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|                     |                    |                             |      |      |              |                             |
|---------------------|--------------------|-----------------------------|------|------|--------------|-----------------------------|
| Consumer            | Human - dermal     | Long term, systemic effects | DNEL | 62   | mg/kg bw/day | Overall assesment factor 20 |
| Consumer            | Human - inhalation | Long term, systemic effects | DNEL | 200  | mg/m3        | Overall assesment factor 5  |
| Workers / employees | Human - dermal     | Long term, systemic effects | DNEL | 186  | mg/kg bw/day |                             |
| Workers / employees | Human - inhalation | Short term, local effects   | DNEL | 2420 | mg/m3        |                             |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 1210 | mg/m3        |                             |

| Dimethyl ether      |  |                             |            |       |       |      |
|---------------------|--|-----------------------------|------------|-------|-------|------|
| Area of application | Exposure route / Environmental compartment           | Effect on health            | Descriptor | Value | Unit  | Note |
|                     | Environment - freshwater                             |                             | PNEC       | 0,155 | mg/l  |      |
|                     | Environment - sediment, freshwater                   |                             | PNEC       | 0,681 | mg/kg |      |
|                     | Environment - soil                                   |                             | PNEC       | 0,045 | mg/kg |      |
|                     | Environment - sewage treatment plant                 |                             | PNEC       | 160   | mg/l  |      |
|                     | Environment - marine                                 |                             | PNEC       | 0,016 | mg/l  |      |
|                     | Environment - water, sporadic (intermittent) release |                             | PNEC       | 1,549 | mg/l  |      |
|                     | Environment - sediment, marine                       |                             | PNEC       | 0,069 | mg/kg |      |
| Consumer            | Human - inhalation                                   | Long term, systemic effects | DNEL       | 471   | mg/m3 |      |
| Workers / employees | Human - inhalation                                   | Long term, systemic effects | DNEL       | 1894  | mg/m3 |      |

| n-butyl acetate     |  |                              |            |        |              |      |
|---------------------|--|------------------------------|------------|--------|--------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health             | Descriptor | Value  | Unit         | Note |
|                     | Environment - freshwater                   |                              | PNEC       | 0,18   | mg/l         |      |
|                     | Environment - marine                       |                              | PNEC       | 0,018  | mg/l         |      |
|                     | Environment - periodic release             |                              | PNEC       | 0,36   | mg/l         |      |
|                     | Environment - sediment, freshwater         |                              | PNEC       | 0,981  | mg/kg        |      |
|                     | Environment - sediment, marine             |                              | PNEC       | 0,0981 | mg/kg        |      |
|                     | Environment - soil                         |                              | PNEC       | 0,0903 | mg/kg        |      |
|                     | Environment - sewage treatment plant       |                              | PNEC       | 35,6   | mg/l         |      |
| Consumer            | Human - dermal                             | Long term, systemic effects  | DNEL       | 3,4    | mg/kg        |      |
| Consumer            | Human - inhalation                         | Short term, systemic effects | DNEL       | 300    | mg/m3        |      |
| Consumer            | Human - inhalation                         | Long term, systemic effects  | DNEL       | 35,7   | mg/m3        |      |
| Consumer            | Human - inhalation                         | Short term, local effects    | DNEL       | 300    | mg/m3        |      |
| Consumer            | Human - inhalation                         | Long term, local effects     | DNEL       | 35,7   | mg/m3        |      |
| Consumer            | Human - dermal                             | Short term, systemic effects | DNEL       | 6      | mg/kg bw/day |      |
| Consumer            | Human - oral                               | Long term, systemic effects  | DNEL       | 2      | mg/kg bw/day |      |
| Consumer            | Human - oral                               | Short term, systemic effects | DNEL       | 2      | mg/kg bw/day |      |



|                     |                    |                              |      |     |                   |  |
|---------------------|--------------------|------------------------------|------|-----|-------------------|--|
| Workers / employees | Human - inhalation | Short term, systemic effects | DNEL | 600 | mg/m <sup>3</sup> |  |
| Workers / employees | Human - inhalation | Long term, systemic effects  | DNEL | 300 | mg/m <sup>3</sup> |  |
| Workers / employees | Human - dermal     | Long term, systemic effects  | DNEL | 7   | mg/kg bw/d        |  |
| Workers / employees | Human - dermal     | Short term, systemic effects | DNEL | 11  | mg/kg bw/day      |  |
| Workers / employees | Human - inhalation | Short term, local effects    | DNEL | 600 | mg/m <sup>3</sup> |  |
| Workers / employees | Human - inhalation | Long term, local effects     | DNEL | 300 | mg/m <sup>3</sup> |  |

**Reaction mass of ethylbenzene and xylene**

| Area of application | Exposure route / Environmental compartment | Effect on health             | Descriptor | Value | Unit              | Note |
|---------------------|--|------------------------------|------------|-------|-------------------|------|
|                     | Environment - freshwater                   |                              | PNEC       | 0,327 | mg/l              |      |
|                     | Environment - marine                       |                              | PNEC       | 0,327 | mg/l              |      |
|                     | Environment - sewage treatment plant       |                              | PNEC       | 6,58  | mg/l              |      |
|                     | Environment - sediment, freshwater         |                              | PNEC       | 12,46 | mg/kg dw          |      |
|                     | Environment - sediment, marine             |                              | PNEC       | 12,46 | mg/kg dw          |      |
|                     | Environment - soil                         |                              | PNEC       | 2,31  | mg/kg dw          |      |
| Consumer            | Human - oral                               | Long term, systemic effects  | DNEL       | 12,5  | mg/kg bw/d        |      |
| Consumer            | Human - inhalation                         | Long term, systemic effects  | DNEL       | 65,3  | mg/m <sup>3</sup> |      |
| Consumer            | Human - inhalation                         | Short term, systemic effects | DNEL       | 260   | mg/m <sup>3</sup> |      |
| Consumer            | Human - inhalation                         | Long term, local effects     | DNEL       | 65,3  | mg/m <sup>3</sup> |      |
| Consumer            | Human - inhalation                         | Short term, local effects    | DNEL       | 260   | mg/m <sup>3</sup> |      |
| Workers / employees | Human - inhalation                         | Long term, systemic effects  | DNEL       | 221   | mg/m <sup>3</sup> |      |
| Workers / employees | Human - inhalation                         | Long term, local effects     | DNEL       | 221   | mg/m <sup>3</sup> |      |
| Workers / employees | Human - inhalation                         | Short term, systemic effects | DNEL       | 442   | mg/m <sup>3</sup> |      |
| Workers / employees | Human - dermal                             | Long term, systemic effects  | DNEL       | 212   | mg/kg bw/d        |      |

**2-methoxy-1-methylethyl acetate**

| Area of application | Exposure route / Environmental compartment           | Effect on health             | Descriptor | Value  | Unit              | Note |
|---------------------|--|------------------------------|------------|--------|-------------------|------|
|                     | Environment - freshwater                             |                              | PNEC       | 0,635  | mg/l              |      |
|                     | Environment - marine                                 |                              | PNEC       | 0,0635 | mg/l              |      |
|                     | Environment - sewage treatment plant                 |                              | PNEC       | 100    | mg/l              |      |
|                     | Environment - sediment, freshwater                   |                              | PNEC       | 3,29   | mg/kg dw          |      |
|                     | Environment - sediment, marine                       |                              | PNEC       | 0,329  | mg/kg dw          |      |
|                     | Environment - soil                                   |                              | PNEC       | 0,29   | mg/kg dw          |      |
|                     | Environment - oral (animal feed)                     |                              | PNEC       | 6,35   | mg/l              |      |
|                     | Environment - water, sporadic (intermittent) release |                              | PNEC       | 6,35   | mg/l              |      |
| Consumer            | Human - oral   | Short term, systemic effects | DNEL       | 500    | mg/kg bw/day      |      |
| Consumer            | Human - inhalation                                   | Long term, systemic effects  | DNEL       | 33     | mg/m <sup>3</sup> |      |

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|                     |                    |                             |      |     |              |  |
|---------------------|--------------------|-----------------------------|------|-----|--------------|--|
| Consumer            | Human - dermal     | Long term, systemic effects | DNEL | 320 | mg/kg bw/day |  |
| Consumer            | Human - oral       | Long term, systemic effects | DNEL | 36  | mg/kg bw/day |  |
| Consumer            | Human - inhalation | Long term, local effects    | DNEL | 33  | mg/m3        |  |
| Workers / employees | Human - dermal     | Long term, systemic effects | DNEL | 796 | mg/kg bw/day |  |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 275 | mg/m3        |  |
| Workers / employees | Human - inhalation | Short term, local effects   | DNEL | 550 | mg/m3        |  |

| Ethanol             |  |                             |            |       |                  |      |
|---------------------|--|-----------------------------|------------|-------|------------------|------|
| Area of application | Exposure route / Environmental compartment           | Effect on health            | Descriptor | Value | Unit             | Note |
|                     | Environment - freshwater                             |                             | PNEC       | 0,96  | mg/l             |      |
|                     | Environment - marine                                 |                             | PNEC       | 0,79  | mg/l             |      |
|                     | Environment - water, sporadic (intermittent) release |                             | PNEC       | 2,75  | mg/l             |      |
|                     | Environment - sewage treatment plant                 |                             | PNEC       | 580   | mg/l             |      |
|                     | Environment - sediment, freshwater                   |                             | PNEC       | 3,6   | mg/kg dry weight |      |
|                     | Environment - soil                                   |                             | PNEC       | 0,63  | mg/kg dry weight |      |
|                     | Environment - oral (animal feed)                     |                             | PNEC       | 0,38  | g/kg feed        |      |
|                     | Environment - sediment, marine                       |                             | PNEC       | 2,9   | mg/kg dry weight |      |
| Consumer            | Human - dermal                                       | Short term, local effects   | DNEL       | 950   | mg/m3            |      |
| Consumer            | Human - inhalation                                   | Long term, systemic effects | DNEL       | 114   | mg/m3            |      |
| Consumer            | Human - oral   | Long term, systemic effects | DNEL       | 87    | mg/kg            |      |
| Consumer            | Human - dermal                                       | Long term, systemic effects | DNEL       | 206   | mg/kg bw/d       |      |
| Consumer            | Human - inhalation                                   | Short term, local effects   | DNEL       | 950   | mg/m3            |      |
| Workers / employees | Human - dermal                                       | Long term, systemic effects | DNEL       | 343   | mg/kg bw/d       |      |
| Workers / employees | Human - inhalation                                   | Long term, systemic effects | DNEL       | 950   | mg/m3            |      |
| Workers / employees | Human - inhalation                                   | Short term, local effects   | DNEL       | 1900  | mg/m3            |      |

| Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm) |  |                  |            |        |          |      |
|--|--|------------------|------------|--------|----------|------|
| Area of application  | Exposure route / Environmental compartment           | Effect on health | Descriptor | Value  | Unit     | Note |
|  | Environment - freshwater                             |                  | PNEC       | 0,184  | mg/l     |      |
|  | Environment - marine                                 |                  | PNEC       | 0,0184 | mg/l     |      |
|  | Environment - water, sporadic (intermittent) release |                  | PNEC       | 0,193  | mg/l     |      |
|  | Environment - sewage treatment plant                 |                  | PNEC       | 100    | mg/l     |      |
|  | Environment - sediment, freshwater                   |                  | PNEC       | 1000   | mg/kg dw |      |
|  | Environment - sediment, marine                       |                  | PNEC       | 100    | mg/kg dw |      |
|  | Environment - soil                                   |                  | PNEC       | 100    | mg/kg dw |      |

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|                     |                                  |                             |      |      |            |  |
|---------------------|----------------------------------|-----------------------------|------|------|------------|--|
|                     | Environment - oral (animal feed) |                             | PNEC | 1667 | mg/kg feed |  |
| Consumer            | Human - oral                     | Long term, systemic effects | DNEL | 700  | mg/kg bw/d |  |
| Workers / employees | Human - inhalation               | Long term, local effects    | DNEL | 10   | mg/m3      |  |

| Trizinc bis(orthophosphate) |  |                             |            |       |                  |               |
|-----------------------------|--|-----------------------------|------------|-------|------------------|---------------|
| Area of application         | Exposure route / Environmental compartment | Effect on health            | Descriptor | Value | Unit             | Note          |
|                             | Environment - freshwater                   |                             | PNEC       | 20,6  | µg/l             | Zn            |
|                             | Environment - marine                       |                             | PNEC       | 6,1   | µg/l             | Zn            |
|                             | Environment - sediment, freshwater         |                             | PNEC       | 117,8 | mg/kg dry weight | Zn            |
|                             | Environment - sediment, marine             |                             | PNEC       | 56,5  | mg/kg dry weight | Zn            |
|                             | Environment - soil                         |                             | PNEC       | 35,6  | mg/kg dw         | Zn            |
|                             | Environment - sewage treatment plant       |                             | PNEC       | 100   | µg/l             | Zn            |
| Consumer                    | Human - dermal                             | Long term, systemic effects | DNEL       | 83    | mg/kg bw/day     |               |
| Consumer                    | Human - inhalation                         | Long term, systemic effects | DNEL       | 2,5   | mg/kg bw/day     |               |
| Consumer                    | Human - oral                               | Long term, systemic effects | DNEL       | 0,83  | mg/kg bw/day     |               |
| Workers / employees         | Human - dermal                             | Long term, systemic effects | DNEL       | 83    | mg/kg bw/day     | Zn, soluble   |
| Workers / employees         | Human - inhalation                         | Long term, systemic effects | DNEL       | 5     | mg/m3            | Zn, insoluble |

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

(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE).

(11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the

date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine

(Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit

value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer

Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through

skin. Carc = Capable of causing cancer and/or heritable genetic damage.

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

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

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

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

These are specified by e.g. EN 14042.

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

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

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

Eye/face protection:

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

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Skin protection - Hand protection:  
 Chemical resistant protective gloves (EN ISO 374).  
 Protective gloves made of butyl (EN ISO 374).  
 Minimum layer thickness in mm:  
 0,4  
 Permeation time (penetration time) in minutes:  
 40  
 Protective hand cream recommended.  
 The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.  
 The recommended maximum wearing time is 50% of breakthrough time.

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

Respiratory protection:  
 Normally not necessary.  
 If OES or MEL is exceeded.  
 Gas mask filter AX (EN 14387), code colour brown.  
 Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:  
 Not applicable

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

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |  |
|---|--|
| Physical state:   | Aerosol. Active substance: liquid.                   |
| Colour:   | According to specification                           |
| Odour:  | Characteristic                                       |
| Melting point/freezing point:                             | There is no information available on this parameter. |
| Boiling point or initial boiling point and boiling range: | n.a.   |
| Flammability:   | Does not apply to aerosols.                          |
| Lower explosion limit:                                    | 1,2 Vol-%  |
| Upper explosion limit:                                    | 26,2 Vol-%   |
| Flash point:  | Does not apply to aerosols.                          |
| Auto-ignition temperature:                                | 240 °C   |
| Decomposition temperature:                                | There is no information available on this parameter. |
| pH:   | Mixture is non-soluble (in water).                   |
| Kinematic viscosity:                                      | Does not apply to aerosols.                          |
| Solubility:   | Not miscible   |
| Partition coefficient n-octanol/water (log value):        | Does not apply to mixtures.                          |
| Vapour pressure:  | 4000 hPa (20°C)                                      |
| Density and/or relative density:                          | 0,8 g/cm <sup>3</sup> (20°C)                         |
| Relative vapour density:                                  | Does not apply to aerosols.                          |
| Particle characteristics:                                 | Does not apply to aerosols.                          |

### 9.2 Other information

|                    |   |
|--------------------|---|
| Explosives:        | Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture. |
| Oxidising liquids: | No  |
| Evaporation rate:  | n.a.  |
| Solvents content:  | 72,86 % (Organic solvents )   |

## SECTION 10: Stability and reactivity

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### 10.1 Reactivity

Not to be expected  
 The product has not been tested.

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

Heating, open flame, ignition sources  
 Pressure increase will result in danger of bursting.

### 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

### 10.6 Hazardous decomposition products

No decomposition when used as directed.

## SECTION 11: Toxicological information

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

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

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| Toxicity / effect   | Endpoint | Value | Unit | Organism | Test method | Notes  |
|---|----------|-------|------|----------|-------------|--------|
| Acute toxicity, by oral route:                                |          |       |      |          |             | n.d.a. |
| Acute toxicity, by dermal route:                              |          |       |      |          |             | n.d.a. |
| Acute toxicity, by inhalation:                                |          |       |      |          |             | n.d.a. |
| Skin corrosion/irritation:                                    |          |       |      |          |             | n.d.a. |
| Serious eye damage/irritation:                                |          |       |      |          |             | n.d.a. |
| Respiratory or skin sensitisation:                            |          |       |      |          |             | n.d.a. |
| Germ cell mutagenicity:                                       |          |       |      |          |             | n.d.a. |
| Carcinogenicity:  |          |       |      |          |             | n.d.a. |
| Reproductive toxicity:  |          |       |      |          |             | n.d.a. |
| Specific target organ toxicity - single exposure (STOT-SE):   |          |       |      |          |             | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): |          |       |      |          |             | n.d.a. |
| Aspiration hazard:  |          |       |      |          |             | n.d.a. |
| Symptoms:   |          |       |      |          |             | n.d.a. |

#### Acetone

| Toxicity / effect                  | Endpoint | Value  | Unit    | Organism               | Test method   | Notes   |
|------------------------------------|----------|--------|---------|------------------------|---|---|
| Acute toxicity, by oral route:     | LD50     | 5800   | mg/kg   | Rat                    | OECD 401 (Acute Oral Toxicity)                        |   |
| Acute toxicity, by dermal route:   | LD50     | >15800 | mg/kg   | Rat                    |   |   |
| Acute toxicity, by inhalation:     | LC50     | 76     | mg/l/4h | Rat                    |   |   |
| Skin corrosion/irritation:         |          |        |         | Guinea pig             |   | Not irritant, Repeated exposure may cause skin dryness or cracking. |
| Serious eye damage/irritation:     |          |        |         | Rabbit                 | OECD 405 (Acute Eye Irritation/Corrosion)             | Eye Irrit. 2  |
| Respiratory or skin sensitisation: |          |        |         | Guinea pig             | OECD 406 (Skin Sensitisation)                         | Not sensitising   |
| Germ cell mutagenicity:            |          |        |         | Mouse                  | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) | Negative  |
| Germ cell mutagenicity:            |          |        |         | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test)            | Negative  |

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|   |       |     |            |           |  |  |
|---|-------|-----|------------|-----------|--|--|
| Germ cell mutagenicity:   |       |     |            | Mammalian | OECD 473 (In Vitro Mammalian Chromosome Aberration Test)       | Negative   |
| Reproductive toxicity (Developmental toxicity):                     |       |     |            | Rat       | OECD 414 (Prenatal Developmental Toxicity Study)               | Negative   |
| Symptoms:   |       |     |            |           |  | unconsciousness , vomiting, headaches, gastrointestinal disturbances, fatigue, mucous membrane irritation, dizziness, nausea, drowsiness |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | 900 | mg/kg bw/d | Rat       | OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) |  |

| Dimethyl ether  |          |       |         |          |   |  |
|---|----------|-------|---------|----------|---|--|
| Toxicity / effect   | Endpoint | Value | Unit    | Organism | Test method   | Notes  |
| Acute toxicity, by inhalation:                                | LC50     | 164   | mg/l/4h | Rat      |   |  |
| Skin corrosion/irritation:                                    |          |       |         |          |   | Not irritant   |
| Serious eye damage/irritation:                                |          |       |         |          |   | Not irritant   |
| Respiratory or skin sensitisation:                            |          |       |         |          |   | No (skin contact)  |
| Germ cell mutagenicity:                                       |          |       |         |          | OECD 471 (Bacterial Reverse Mutation Test)  | Negative   |
| Germ cell mutagenicity:                                       |          |       |         |          | OECD 473 (In Vitro Mammalian Chromosome Aberration Test)                                    | Negative   |
| Germ cell mutagenicity:                                       |          |       |         |          | OECD 477 (Genetic Toxicology - Sex-Linked Recessive Lethal Test in Drosophila melanogaster) | Negative   |
| Carcinogenicity:  | NOAEC    | 47000 | mg/m3   | Rat      | OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)                                | Negative   |
| Reproductive toxicity:  | NOAEL    | 5000  | ppm     | Rat      | OECD 414 (Prenatal Developmental Toxicity Study)  |  |
| Specific target organ toxicity - repeated exposure (STOT-RE): | NOAEC    | 47106 | mg/kg   | Rat      | OECD 452 (Chronic Toxicity Studies)   | Negative(2 a)  |
| Aspiration hazard:  |          |       |         |          |   | No   |
| Symptoms:   |          |       |         |          |   | unconsciousness , headaches, mucous membrane irritation, dizziness, nausea and vomiting., frostbite, gastrointestinal disturbances, respiratory distress, circulatory collapse |

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Thick Film Lacquer 4-in-1 Carmine red RAL 3002 L222

400 ml Art.: 6210 2404, Art.: 6214 2404

| <b>n-butyl acetate</b>  |                 |              |             |                        |   |   |
|---|-----------------|--------------|-------------|------------------------|---|---|
| <b>Toxicity / effect</b>  | <b>Endpoint</b> | <b>Value</b> | <b>Unit</b> | <b>Organism</b>        | <b>Test method</b>  | <b>Notes</b>  |
| Acute toxicity, by oral route:  | LD50            | 10760        | mg/kg       | Rat                    | OECD 423 (Acute Oral Toxicity - Acute Toxic Class Method) |   |
| Acute toxicity, by dermal route:  | LD50            | >14112       | mg/kg       | Rabbit                 | OECD 402 (Acute Dermal Toxicity)                          |   |
| Acute toxicity, by inhalation:  | LC50            | 21,1         | mg/l/4h     | Rat                    | OECD 403 (Acute Inhalation Toxicity)                      | Vapours   |
| Skin corrosion/irritation:  |                 |              |             | Rabbit                 | OECD 404 (Acute Dermal Irritation/Corrosion)              | Not irritant  |
| Serious eye damage/irritation:  |                 |              |             | Rabbit                 | OECD 405 (Acute Eye Irritation/Corrosion)                 | Not irritant  |
| Respiratory or skin sensitisation:                                      |                 |              |             | Guinea pig             | OECD 406 (Skin Sensitisation)                             | No (skin contact)   |
| Germ cell mutagenicity:   |                 |              |             | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test)                | Negative  |
| Reproductive toxicity:  | NOAEC           | 9640         | mg/m3       |                        | OECD 416 (Two-generation Reproduction Toxicity Study)     | Negative  |
| Specific target organ toxicity - single exposure (STOT-SE):             |                 |              |             |                        |   | Vapours may cause drowsiness and dizziness.   |
| Specific target organ toxicity - repeated exposure (STOT-RE):           |                 |              |             |                        |   | Negative  |
| Symptoms:   |                 |              |             |                        |   | drowsiness, unconsciousness, headaches, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting. |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEC           | 500          | ppm         | Rat                    |   |   |

| <b>Reaction mass of ethylbenzene and xylene</b>                         |                 |              |             |                 |  |  |
|---|-----------------|--------------|-------------|-----------------|--|--|
| <b>Toxicity / effect</b>  | <b>Endpoint</b> | <b>Value</b> | <b>Unit</b> | <b>Organism</b> | <b>Test method</b>                                     | <b>Notes</b>   |
| Acute toxicity, by oral route:  | LD50            | 3523-4000    | mg/kg       | Rat             | Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)     |  |
| Respiratory or skin sensitisation:                                      |                 |              |             | Mouse           | OECD 429 (Skin Sensitisation - Local Lymph Node Assay) | No (skin contact)  |
| Symptoms:   |                 |              |             |                 |  | drowsiness, headaches, fatigue, dizziness, unconsciousness, nausea and vomiting. |
| Specific target organ toxicity - single exposure (STOT-SE), inhalative: |                 |              |             |                 |  | Irritation of the respiratory tract, STOT SE 3, H335                             |

| <b>2-methoxy-1-methylethyl acetate</b> |                 |              |             |                 |                                |              |
|--|-----------------|--------------|-------------|-----------------|--------------------------------|--------------|
| <b>Toxicity / effect</b>               | <b>Endpoint</b> | <b>Value</b> | <b>Unit</b> | <b>Organism</b> | <b>Test method</b>             | <b>Notes</b> |
| Acute toxicity, by oral route:         | LD50            | >5000        | mg/kg       | Rat             | OECD 401 (Acute Oral Toxicity) |              |

|   |       |          |            |                        |   |   |
|---|-------|----------|------------|------------------------|---|---|
| Acute toxicity, by dermal route:  | LD50  | >5000    | mg/kg      | Rabbit                 | OECD 402 (Acute Dermal Toxicity)  |   |
| Acute toxicity, by inhalation:  | LC50  | >23,5    | mg/l/6h    | Rat                    | OECD 403 (Acute Inhalation Toxicity)  | Vapours   |
| Skin corrosion/irritation:  |       |          |            | Rabbit                 | OECD 404 (Acute Dermal Irritation/Corrosion)  | Not irritant  |
| Serious eye damage/irritation:  |       |          |            | Rabbit                 | OECD 405 (Acute Eye Irritation/Corrosion)   | Not irritant  |
| Respiratory or skin sensitisation:                                      |       |          |            | Guinea pig             | OECD 406 (Skin Sensitisation)   | No (skin contact)   |
| Germ cell mutagenicity:   |       |          |            | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test)  | Negative  |
| Germ cell mutagenicity:   |       |          |            | Mammalian              | OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  | Negative Chinese hamster  |
| Germ cell mutagenicity:   |       |          |            | Rat                    | OECD 482 (Gen. Tox. - DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro) | Negative  |
| Carcinogenicity:  | NOAEL | ~ 3690   | mg/m3      | Rat                    |   | Analogous conclusion vapour   |
| Reproductive toxicity:  | NOAEL | 300-1000 | ppm        | Rat                    | OECD 416 (Two-generation Reproduction Toxicity Study)   | Analogous conclusion vapour   |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral:     | NOAEL | >= 1000  | mg/kg      | Rat                    | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)    |   |
| Symptoms:   |       |          |            |                        |   | respiratory distress, drowsiness, unconsciousness, vomiting, headaches, mucous membrane irritation, dizziness, nausea |
| Specific target organ toxicity - repeated exposure (STOT-RE), dermal:   | NOAEL | >= 1000  | mg/kg bw/d | Rabbit                 | OECD 410 (Repeated Dose Dermal Toxicity - 90-Day)   | Analogous conclusion  |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOEL  | 300      | ppm        | Rat                    | OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)  | Vapours, Analogous conclusion   |

**Ethanol**

| Toxicity / effect                | Endpoint | Value    | Unit    | Organism | Test method                                  | Notes        |
|----------------------------------|----------|----------|---------|----------|--|--------------|
| Acute toxicity, by oral route:   | LD50     | 10470    | mg/kg   | Rat      | OECD 401 (Acute Oral Toxicity)               |              |
| Acute toxicity, by dermal route: | LD50     | >2000    | mg/kg   | Rabbit   | OECD 402 (Acute Dermal Toxicity)             |              |
| Acute toxicity, by inhalation:   | LC50     | 51-124,7 | mg/l/4h | Rat      | OECD 403 (Acute Inhalation Toxicity)         | Vapours      |
| Skin corrosion/irritation:       |          |          |         | Rabbit   | OECD 404 (Acute Dermal Irritation/Corrosion) | Not irritant |
| Serious eye damage/irritation:   |          |          |         | Rabbit   | OECD 405 (Acute Eye Irritation/Corrosion)    | Eye Irrit. 2 |



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|   |       |       |            |                        |  |   |
|---|-------|-------|------------|------------------------|--|---|
| Respiratory or skin sensitisation:                            |       |       |            | Mouse                  | OECD 429 (Skin Sensitisation - Local Lymph Node Assay)         | No (skin contact)   |
| Germ cell mutagenicity:                                       |       |       |            | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test)                     | Negative  |
| Germ cell mutagenicity:                                       |       |       |            | Mouse                  | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)          | Negative  |
| Germ cell mutagenicity:                                       |       |       |            |                        | OECD 473 (In Vitro Mammalian Chromosome Aberration Test)       | Negative  |
| Germ cell mutagenicity:                                       |       |       |            |                        | OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)    | Negative  |
| Carcinogenicity:  | NOAEL | >3000 | mg/kg      | Rat                    | OECD 451 (Carcinogenicity Studies)                             | 24 mon  |
| Reproductive toxicity:  | NOAEL | 5200  | mg/kg bw/d | Rat                    | OECD 416 (Two-generation Reproduction Toxicity Study)          |   |
| Specific target organ toxicity - repeated exposure (STOT-RE): | NOAL  | >20   | mg/l       | Rat                    | OECD 403 (Acute Inhalation Toxicity)                           | Male  |
| Specific target organ toxicity - repeated exposure (STOT-RE): | NOAEL | 1730  | mg/kg/d    | Rat                    | OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) | Female  |
| Symptoms:   |       |       |            |                        |  | respiratory distress, drowsiness, unconsciousness, drop in blood pressure, vomiting, coughing, headaches, intoxication, drowsiness, mucous membrane irritation, dizziness, nausea |

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

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|   |       |      |         |                        |  |   |
|---|-------|------|---------|------------------------|--|---|
| Germ cell mutagenicity:   |       |      |         | Mammalian              | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative  |
| Germ cell mutagenicity:   |       |      |         | Salmonella typhimurium | (Ames-Test)  | Negative  |
| Germ cell mutagenicity:   |       |      |         |                        | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)    | Negative  |
| Germ cell mutagenicity:   |       |      |         |                        | OECD 471 (Bacterial Reverse Mutation Test)               | Negative  |
| Reproductive toxicity (Developmental toxicity):                         |       |      |         | Rat                    | OECD 414 (Prenatal Developmental Toxicity Study)         | No indications of such an effect.   |
| Specific target organ toxicity - single exposure (STOT-SE):             |       |      |         |                        |  | Not irritant (respiratory tract).   |
| Symptoms:   |       |      |         |                        |  | mucous membrane irritation, coughing, respiratory distress, drying of the skin. |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral:     | NOAEL | 3500 | mg/kg/d | Rat                    |  | 90d   |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEC | 10   | mg/m3   | Rat                    |  | 90d   |

| <b>Trizinc bis(orthophosphate)</b>                            |                 |              |             |                        |  |   |
|---|-----------------|--------------|-------------|------------------------|--|---|
| <b>Toxicity / effect</b>                                      | <b>Endpoint</b> | <b>Value</b> | <b>Unit</b> | <b>Organism</b>        | <b>Test method</b>                         | <b>Notes</b>                            |
| Acute toxicity, by oral route:                                | LD50            | >5000        | mg/kg       | Rat                    | OECD 401 (Acute Oral Toxicity)             |   |
| Acute toxicity, by inhalation:                                | LC50            | >5,7         | mg/l/4h     | Rat                    | OECD 403 (Acute Inhalation Toxicity)       | Analogous conclusion                    |
| Skin corrosion/irritation:                                    |                 |              |             |                        |  | Not irritant                            |
| Serious eye damage/irritation:                                |                 |              |             | Rabbit                 | OECD 405 (Acute Eye Irritation/Corrosion)  | Not irritant                            |
| Respiratory or skin sensitisation:                            |                 |              |             | Guinea pig             | OECD 406 (Skin Sensitisation)              | No (skin contact), Analogous conclusion |
| Germ cell mutagenicity:                                       |                 |              |             | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative, Analogous conclusion          |
| Germ cell mutagenicity:                                       |                 |              |             |                        |  | Analogous conclusion, Negative          |
| Carcinogenicity:  |                 |              |             |                        |  | Analogous conclusion, Negative          |
| Reproductive toxicity:  |                 |              |             |                        |  | Analogous conclusion, Negative          |
| Specific target organ toxicity - single exposure (STOT-SE):   |                 |              |             |                        |  | Analogous conclusion, No                |
| Specific target organ toxicity - repeated exposure (STOT-RE): |                 |              |             |                        |  | Analogous conclusion, No                |
| Aspiration hazard:  |                 |              |             |                        |  | n.a.                                    |

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|   |  |  |  |  |  |   |
|---|--|--|--|--|--|---|
| Symptoms:   |  |  |  |  |  | breathing difficulties, fever, headaches, stomach pain, dizziness, nausea and vomiting. |
| Specific target organ toxicity - single exposure (STOT-SE), inhalative: |  |  |  |  |  | Not irritant (respiratory tract)., Analogous conclusion                                 |

| Butane  |          |        |         |                        |  |  |
|---|----------|--------|---------|------------------------|--|--|
| Toxicity / effect   | Endpoint | Value  | Unit    | Organism               | Test method  | Notes  |
| Acute toxicity, by inhalation:  | LC50     | 658    | mg/l/4h | Rat                    |  |  |
| Germ cell mutagenicity:   |          |        |         | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test)   | Negative   |
| Germ cell mutagenicity:   |          |        |         |                        | OECD 473 (In Vitro Mammalian Chromosome Aberration Test)   | Negative   |
| Germ cell mutagenicity:   |          |        |         | Human being            | OECD 473 (In Vitro Mammalian Chromosome Aberration Test)   | Negative   |
| Germ cell mutagenicity:   |          |        |         | Rat                    | OECD 474 (Mammalian Erythrocyte Micronucleus Test)   | Negative   |
| Aspiration hazard:  |          |        |         |                        |  | No   |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEC    | 21,394 | mg/l    | Rat                    | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test) |  |
| Symptoms:   |          |        |         |                        |  | ataxia, breathing difficulties, drowsiness, unconsciousness, frostbite, disturbed heart rhythm, headaches, cramps, intoxication, dizziness, nausea and vomiting. |

| Propane                        |          |        |         |                        |  |                                    |
|--------------------------------|----------|--------|---------|------------------------|--|------------------------------------|
| Toxicity / effect              | Endpoint | Value  | Unit    | Organism               | Test method  | Notes                              |
| Acute toxicity, by inhalation: | LC50     | 658    | mg/l/4h | Rat                    |  |                                    |
| Acute toxicity, by inhalation: | LC50     | 260000 | ppmV/4h | Rat                    |  | Gasses, Male, Analogous conclusion |
| Skin corrosion/irritation:     |          |        |         |                        |  | Not irritant                       |
| Serious eye damage/irritation: |          |        |         |                        |  | Not irritant                       |
| Germ cell mutagenicity:        |          |        |         |                        | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative                           |
| Germ cell mutagenicity:        |          |        |         | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test)               | Negative                           |

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|   |       |        |      |     |  |  |
|---|-------|--------|------|-----|--|--|
| Reproductive toxicity (Developmental toxicity):                         | NOAEC | 21,641 | mg/l |     | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test) |  |
| Aspiration hazard:  |       |        |      |     |  | No   |
| Symptoms:   |       |        |      |     |  | breathing difficulties, unconsciousness, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and vomiting. |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEL | 7,214  | mg/l | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test) |  |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | LOAEL | 21,641 | mg/l | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test) |  |

| Isobutane   |          |        |         |                        |  |  |
|---|----------|--------|---------|------------------------|--|--|
| Toxicity / effect   | Endpoint | Value  | Unit    | Organism               | Test method  | Notes  |
| Acute toxicity, by inhalation:  | LC50     | 658    | mg/l/4h | Rat                    |  |  |
| Acute toxicity, by inhalation:  | LC50     | 260000 | ppmV/4h | Rat                    |  | Gasses, Male   |
| Serious eye damage/irritation:  |          |        |         | Rabbit                 |  | Not irritant   |
| Germ cell mutagenicity:   |          |        |         | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test)   | Negative   |
| Aspiration hazard:  |          |        |         |                        |  | No   |
| Symptoms:   |          |        |         |                        |  | unconsciousness, frostbite, headaches, cramps, dizziness, nausea and vomiting. |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEL    | 21,394 | mg/l    | Rat                    | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test) |  |

## 11.2. Information on other hazards

| Thick Film Lacquer 4-in-1 Carmine red RAL 3002 L222<br>400 ml Art.: 6210 2404, Art.: 6214 2404 |          |       |      |          |             |   |
|--|----------|-------|------|----------|-------------|---|
| Toxicity / effect  | Endpoint | Value | Unit | Organism | Test method | Notes   |
| Endocrine disrupting properties:   |          |       |      |          |             | Does not apply to mixtures.   |
| Other information:   |          |       |      |          |             | No other relevant information available on adverse effects on health. |

| n-butyl acetate   |          |       |      |          |             |       |
|-------------------|----------|-------|------|----------|-------------|-------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |

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|                    |  |  |  |  |  |   |
|--------------------|--|--|--|--|--|---|
| Other information: |  |  |  |  |  | Repeated exposure may cause skin dryness or cracking. |
|--------------------|--|--|--|--|--|---|

| Ethanol            |          |       |      |          |             |   |
|--------------------|----------|-------|------|----------|-------------|---|
| Toxicity / effect  | Endpoint | Value | Unit | Organism | Test method | Notes   |
| Other information: |          |       |      |          |             | Excessive alcohol consumption during pregnancy induces the foetus alcohol syndrome (reduced weight at birth, physical and mental disorders)., There is no sign that this syndrome is also caused by dermal or inhalative absorption., Experiences on persons. |

## SECTION 12: Ecological information

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

**Thick Film Lacquer 4-in-1 Carmine red RAL 3002 L222**  
**400 ml Art.: 6210 2404, Art.: 6214 2404**

| Toxicity / effect                        | Endpoint | Time | Value | Unit | Organism | Test method | Notes   |
|--|----------|------|-------|------|----------|-------------|---|
| 12.1. Toxicity to fish:                  |          |      |       |      |          |             | n.d.a.  |
| 12.1. Toxicity to daphnia:               |          |      |       |      |          |             | n.d.a.  |
| 12.1. Toxicity to algae:                 |          |      |       |      |          |             | n.d.a.  |
| 12.2. Persistence and degradability:     |          |      |       |      |          |             | n.d.a.  |
| 12.3. Bioaccumulative potential:         |          |      |       |      |          |             | n.d.a.  |
| 12.4. Mobility in soil:                  |          |      |       |      |          |             | n.d.a.  |
| 12.5. Results of PBT and vPvB assessment |          |      |       |      |          |             | n.d.a.  |
| 12.6. Endocrine disrupting properties:   |          |      |       |      |          |             | Does not apply to mixtures.   |
| 12.7. Other adverse effects:             |          |      |       |      |          |             | No information available on other adverse effects on the environment. |
| Other information:                       | AOX      |      |       |      |          |             | According to the recipe, contains no AOX.                             |
| Other information:                       | DOC      |      |       |      |          |             | DOC-elimination degree(complexing organic substance)>= 80%/28d: n.a.  |

| Acetone           |          |      |       |      |          |             |       |
|-------------------|----------|------|-------|------|----------|-------------|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |

|  |           |       |            |      |                                 |   |                                     |
|--|-----------|-------|------------|------|---------------------------------|---|-------------------------------------|
| Other organisms:                         | EC5       | 72h   | 28         | mg/l | Entosiphon sulcatum             |   |                                     |
| 12.1. Toxicity to fish:                  | EC50      | 96h   | 8300       | mg/l | Lepomis macrochirus             |   |                                     |
| 12.1. Toxicity to fish:                  | LC50      | 96h   | 8300       | mg/l | Lepomis macrochirus             |   |                                     |
| 12.1. Toxicity to fish:                  | LC50      | 96h   | 5540       | mg/l | Oncorhynchus mykiss             |   |                                     |
| 12.1. Toxicity to fish:                  | LC50      | 96h   | 7500       | mg/l | Leuciscus idus                  |   |                                     |
| 12.1. Toxicity to daphnia:               | EC50      | 48h   | 6100-12700 | mg/l | Daphnia magna                   |   |                                     |
| 12.1. Toxicity to daphnia:               | EC50      | 48h   | 8800       | mg/l | Daphnia pulex                   | OECD 202 (Daphnia sp. Acute Immobilisation Test)  |                                     |
| 12.1. Toxicity to daphnia:               | NOEC/NOEL | 28d   | 2212       | mg/l | Daphnia pulex                   | OECD 211 (Daphnia magna Reproduction Test)  |                                     |
| 12.1. Toxicity to algae:                 | NOEC/NOEL | 8d    | 530        | mg/l |                                 | DIN 38412 T.9   | Test organism: M. aeruginosa        |
| 12.1. Toxicity to algae:                 | EC50      | 48h   | 4740       | mg/l | Pseudokirchneriella subcapitata |   |                                     |
| 12.1. Toxicity to algae:                 | NOEC/NOEL | 48h   | 3400       | mg/l | Pseudokirchneriella subcapitata |   |                                     |
| 12.2. Persistence and degradability:     |           | 28d   | 91         | %    |                                 | OECD 301 A (Ready Biodegradability - DOC Die-Away Test)   | Readily biodegradable               |
| 12.2. Persistence and degradability:     |           | 28d   | 91         | %    |                                 | OECD 301 B (Ready Biodegradability - Co2 Evolution Test)  | Readily biodegradable               |
| 12.2. Persistence and degradability:     |           | 30d   | 81-92      | %    |                                 | Regulation (EC) 440/2008 C.4-E (DETERMINATION OF 'READY' BIODEGRADABILITY - CLOSED BOTTLE TEST) | Readily biodegradable               |
| 12.3. Bioaccumulative potential:         | Log Pow   |       | -0,24      |      |                                 | OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)                         |                                     |
| 12.3. Bioaccumulative potential:         | BCF       |       | 0,19       |      |                                 |   | Low                                 |
| 12.4. Mobility in soil:                  |           |       |            |      |                                 |   | No adsorption in soil.              |
| 12.5. Results of PBT and vPvB assessment |           |       |            |      |                                 |   | No PBT substance, No vPvB substance |
| Toxicity to bacteria:                    | EC10      | 30min | 1000       | mg/l | activated sludge                | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))        |                                     |
| Toxicity to bacteria:                    | BOD/COD   | 16h   | 1700       | mg/l | Pseudomonas putida              |   |                                     |
| Other information:                       | BOD5      |       | 1760-1900  | mg/g |                                 |   |                                     |

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Thick Film Lacquer 4-in-1 Carmine red RAL 3002 L222

400 ml Art.: 6210 2404, Art.: 6214 2404

|                    |     |  |      |      |  |  |  |
|--------------------|-----|--|------|------|--|--|--|
| Other information: | AOX |  | 0    | %    |  |  |  |
| Other information: | COD |  | 2070 | mg/g |  |  |  |

| Dimethyl ether                           |           |      |       |           |                     |  |   |
|--|-----------|------|-------|-----------|---------------------|--|---|
| Toxicity / effect                        | Endpoint  | Time | Value | Unit      | Organism            | Test method  | Notes   |
| 12.1. Toxicity to fish:                  | LC0       | 96h  | 2695  | mg/l      | Pimephales promelas |  |   |
| 12.1. Toxicity to fish:                  | LC50      | 96h  | 3082  | mg/l      | Salmo gairdneri     |  |   |
| 12.1. Toxicity to fish:                  | LC50      | 96h  | >4,1  | mg/l      | Poecilia reticulata |  |   |
| 12.1. Toxicity to daphnia:               | EC50      | 48h  | >4,4  | mg/l      | Daphnia magna       |  |   |
| 12.1. Toxicity to algae:                 | EC50      | 96h  | 154,9 | mg/l      | Chlorella vulgaris  |  |   |
| 12.2. Persistence and degradability:     |           | 28d  | 5     | %         |                     | OECD 301 D (Ready Biodegradability - Closed Bottle Test) | Not readily biodegradable   |
| 12.3. Bioaccumulative potential:         | Log Pow   |      | -0,07 |           |                     |  | Bioaccumulation is unlikely (LogPow < 1). 25°C (pH 7)   |
| 12.4. Mobility in soil:                  | H (Henry) |      | 518,6 | Pa*m3/mol |                     |  | No adsorption in soil.  |
| 12.5. Results of PBT and vPvB assessment |           |      |       |           |                     |  | No PBT substance, No vPvB substance   |
| Toxicity to bacteria:                    | EC10      |      | >1600 | mg/l      | Pseudomonas putida  |  |   |
| Other information:                       |           |      |       |           |                     |  | Does not contain any organically bound halogens which can contribute to the AOX value in waste water. DIN EN 1485 |
| Water solubility:                        |           |      | 45,60 | mg/l      |                     |  | 25°C  |

| n-butyl acetate                      |           |      |          |      |                         |  |                                      |
|--------------------------------------|-----------|------|----------|------|-------------------------|--|--------------------------------------|
| Toxicity / effect                    | Endpoint  | Time | Value    | Unit | Organism                | Test method  | Notes                                |
| 12.7. Other adverse effects:         |           |      |          |      |                         |  | Product floats on the water surface. |
| 12.1. Toxicity to fish:              | LC50      | 96h  | 18       | mg/l | Pimephales promelas     | OECD 203 (Fish, Acute Toxicity Test)                     |                                      |
| 12.1. Toxicity to daphnia:           | EC50      | 48h  | 44       | mg/l | Daphnia magna           | OECD 202 (Daphnia sp. Acute Immobilisation Test)         |                                      |
| 12.1. Toxicity to daphnia:           | NOEC/NOEL | 21d  | 23       | mg/l | Daphnia magna           | OECD 211 (Daphnia magna Reproduction Test)               |                                      |
| 12.1. Toxicity to algae:             | EC50      | 72h  | 397      | mg/l | Scenedesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test)                  |                                      |
| 12.1. Toxicity to algae:             | NOEC/NOEL | 72h  | 200      | mg/l | Desmodesmus subspicatus |  |                                      |
| 12.2. Persistence and degradability: |           | 28d  | 98       | %    |                         | OECD 301 D (Ready Biodegradability - Closed Bottle Test) | Readily biodegradable                |
| 12.3. Bioaccumulative potential:     | Log Pow   |      | 1,78-2,3 |      |                         |  | Low                                  |
| 12.3. Bioaccumulative potential:     | BCF       |      | 15,3     |      |                         |  |                                      |

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|  |      |  |     |      |                    |  |                                     |
|--|------|--|-----|------|--------------------|--|-------------------------------------|
| 12.5. Results of PBT and vPvB assessment |      |  |     |      |                    |  | No PBT substance, No vPvB substance |
| Toxicity to bacteria:                    | EC10 |  | 959 | mg/l | Pseudomonas putida |  |                                     |

| Reaction mass of ethylbenzene and xylene |          |      |       |      |                                 |  |                                     |
|--|----------|------|-------|------|---------------------------------|--|-------------------------------------|
| Toxicity / effect                        | Endpoint | Time | Value | Unit | Organism                        | Test method  | Notes                               |
| 12.2. Persistence and degradability:     |          | 28d  | 90    | %    |                                 | OECD 301 F (Ready Biodegradability - Manometric Respirometry Test) | Readily biodegradable               |
| 12.3. Bioaccumulative potential:         | BCF      |      | 25,9  |      |                                 |  | Low, Analogous conclusion           |
| 12.1. Toxicity to fish:                  | LC50     | 96h  | 2,6   | mg/l | Oncorhynchus mykiss             | OECD 203 (Fish, Acute Toxicity Test)                               | Analogous conclusion                |
| 12.1. Toxicity to daphnia:               | IC50     | 24h  | 1     | mg/l | Daphnia magna                   | OECD 202 (Daphnia sp. Acute Immobilisation Test)                   | Analogous conclusion                |
| 12.1. Toxicity to algae:                 | EC50     | 72h  | 2,2   | mg/l | Pseudokirchneriella subcapitata | OECD 201 (Alga, Growth Inhibition Test)                            | Analogous conclusion                |
| 12.5. Results of PBT and vPvB assessment |          |      |       |      |                                 |  | No PBT substance, No vPvB substance |

| 2-methoxy-1-methylethyl acetate      |           |      |         |      |                           |  |   |
|--------------------------------------|-----------|------|---------|------|---------------------------|--|---|
| Toxicity / effect                    | Endpoint  | Time | Value   | Unit | Organism                  | Test method  | Notes   |
| Other information:                   |           |      |         |      |                           |  | Does not contain any organically bound halogens which can contribute to the AOX value in waste water. |
| 12.1. Toxicity to fish:              | NOEC/NOEL | 14d  | 47,5    | mg/l | Oryzias latipes           | OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)            |   |
| 12.1. Toxicity to fish:              | LC50      | 96h  | 100-180 | mg/l | Oncorhynchus mykiss       | OECD 203 (Fish, Acute Toxicity Test)                               |   |
| 12.1. Toxicity to daphnia:           | EC50      | 48h  | >500    | mg/l | Daphnia magna             | OECD 202 (Daphnia sp. Acute Immobilisation Test)                   |   |
| 12.1. Toxicity to daphnia:           | NOEC/NOEL | 21d  | >100    | mg/l | Daphnia magna             | OECD 211 (Daphnia magna Reproduction Test)                         |   |
| 12.1. Toxicity to algae:             | EC50      | 72h  | >1000   | mg/l | Selenastrum capricornutum | OECD 201 (Alga, Growth Inhibition Test)                            |   |
| 12.2. Persistence and degradability: |           | 28d  | 83-90   | %    | activated sludge          | OECD 301 F (Ready Biodegradability - Manometric Respirometry Test) | Readily biodegradable   |



|  |         |       |           |      |                  |  |  |
|--|---------|-------|-----------|------|------------------|--|--|
| 12.3. Bioaccumulative potential:         | Log Kow |       | 1,2       |      |                  | OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)                         | A notable biological accumulation potential is not to be expected (LogPow 1-3).20 °C, pH 6.8 |
| 12.4. Mobility in soil:                  | Koc     |       | 1,7-3,998 |      |                  |  |  |
| 12.5. Results of PBT and vPvB assessment |         |       |           |      |                  |  | No PBT substance, No vPvB substance  |
| Toxicity to bacteria:                    | EC10    | 30min | >1000     | mg/l | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) |  |

**Ethanol**

| Toxicity / effect                        | Endpoint  | Time | Value             | Unit | Organism            | Test method  | Notes                                     |
|--|-----------|------|-------------------|------|---------------------|--|---|
| 12.1. Toxicity to fish:                  | LC50      | 96h  | 13000             | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test)   |   |
| 12.1. Toxicity to fish:                  | NOEC/NOEL | 120h | 250               | mg/l | Brachydanio rerio   | OECD 212 (Fish, Short-term Toxicity Test on Embryo and Sac-fry Stages)                   |   |
| 12.1. Toxicity to daphnia:               | EC50      | 48h  | 5414              | mg/l | Daphnia magna       | OECD 202 (Daphnia sp. Acute Immobilisation Test)   |   |
| 12.1. Toxicity to daphnia:               | NOEC/NOEL | 10d  | 9,6               | mg/l | Ceriodaphnia spec.  |  | References                                |
| 12.1. Toxicity to algae:                 | EC50      | 72h  | 275               | mg/l | Chlorella vulgaris  | OECD 201 (Alga, Growth Inhibition Test)  |   |
| 12.2. Persistence and degradability:     |           | 28d  | 97                | %    | activated sludge    | OECD 301 B (Ready Biodegradability - Co2 Evolution Test)                                 | Readily biodegradable                     |
| 12.3. Bioaccumulative potential:         | Log Pow   |      | (-0,35) - (-0,32) |      |                     |  | Bioaccumulation is unlikely (LogPow < 1). |
| 12.3. Bioaccumulative potential:         | BCF       |      | 0,66 - 3,2        |      |                     |  |   |
| 12.4. Mobility in soil:                  | H (Henry) |      | 0,000138          |      |                     |  |   |
| 12.4. Mobility in soil:                  | Koc       |      | 1,0               |      |                     |  | Highestimated                             |
| 12.5. Results of PBT and vPvB assessment |           |      |                   |      |                     |  | No PBT substance, No vPvB substance       |
| Toxicity to bacteria:                    | IC50      | 3h   | >1000             | mg/l | activated sludge    | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) | Analogous conclusion                      |
| Other organisms:                         | NOEC/NOEL |      | 280               | mg/l | Lemna gibba         | OECD 201 (Alga, Growth Inhibition Test)  |   |

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400 ml Art.: 6210 2404, Art.: 6214 2404

|                    |      |  |     |     |  |  |
|--------------------|------|--|-----|-----|--|--|
| Other information: | COD  |  | 1,9 | g/g |  |  |
| Other information: | BOD5 |  | 1   | g/g |  |  |

| Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$ ) |           |      |        |       |                                 |  |  |
|--|-----------|------|--------|-------|---------------------------------|--|--|
| Toxicity / effect  | Endpoint  | Time | Value  | Unit  | Organism                        | Test method                                      | Notes                                  |
| 12.1. Toxicity to fish:  | LC50      | 96h  | >100   | mg/l  | Oncorhynchus mykiss             | OECD 203 (Fish, Acute Toxicity Test)             |  |
| 12.1. Toxicity to daphnia:   | LC50      | 48h  | >100   | mg/l  | Daphnia magna                   | OECD 202 (Daphnia sp. Acute Immobilisation Test) |  |
| 12.1. Toxicity to algae:   | EC50      | 72h  | 16     | mg/l  | Pseudokirchneriella subcapitata | U.S. EPA-600/9-78-018                            |  |
| 12.2. Persistence and degradability:   |           |      |        |       |                                 |  | Not relevant for inorganic substances. |
| 12.3. Bioaccumulative potential:   | BCF       | 42d  | 9,6    |       |                                 |  | Not to be expected                     |
| 12.3. Bioaccumulative potential:   | BCF       | 14d  | 19-352 |       |                                 |  | Oncorhynchus mykiss                    |
| 12.4. Mobility in soil:  |           |      |        |       |                                 |  | Negative                               |
| 12.5. Results of PBT and vPvB assessment   |           |      |        |       |                                 |  | No PBT substance, No vPvB substance    |
| Toxicity to bacteria:  |           |      | >5000  | mg/l  | Escherichia coli                |  |  |
| Toxicity to bacteria:  | LC0       | 24h  | >10000 | mg/l  | Pseudomonas fluorescens         |  |  |
| Toxicity to annelids:  | NOEC/NOEL |      | >1000  | mg/kg | Eisenia foetida                 |  |  |
| Water solubility:  |           |      |        |       |                                 |  | Insoluble <sub>20°C</sub>              |

| Trizinc bis(orthophosphate)              |           |      |            |      |                           |                          |  |
|--|-----------|------|------------|------|---------------------------|--------------------------|--|
| Toxicity / effect                        | Endpoint  | Time | Value      | Unit | Organism                  | Test method              | Notes  |
| Water solubility:                        |           |      |            |      |                           |                          | Insoluble<br>Wasserlöslichkeit <0,1% (DIN ISO 787, Teil 3) bzw. 0,025 g Zn/l (67/548/EWG, Anh. V, C) |
| 12.1. Toxicity to fish:                  | LC50      | 96h  | 0,09       | mg/l | Oncorhynchus mykiss       |                          |  |
| 12.1. Toxicity to fish:                  | LC50      | 96h  | 0,177      | mg/l | Oncorhynchus mykiss       | U.S. EPA ECOTOX Database |  |
| 12.1. Toxicity to daphnia:               | EC50      | 48h  | 28,2       | mg/l | Daphnia magna             |                          |  |
| 12.1. Toxicity to algae:                 | ErC50     | 72h  | 11         | mg/l | Desmodesmus subspicatus   |                          |  |
| 12.1. Toxicity to algae:                 | EC50      | 72h  | 0,136-0,15 | mg/l | Selenastrum capricornutum |                          | Analogous conclusion   |
| 12.5. Results of PBT and vPvB assessment |           |      |            |      |                           |                          | Not relevant for inorganic substances.   |
| Toxicity to bacteria:                    | NOEC/NOEL | 4h   | 0,1        | mg/l | activated sludge          |                          | Analogous conclusion   |

| Butane                     |          |      |       |      |          |             |       |
|----------------------------|----------|------|-------|------|----------|-------------|-------|
| Toxicity / effect          | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish:    | LC50     | 96h  | 24,11 | mg/l |          | QSAR        |       |
| 12.1. Toxicity to daphnia: | LC50     | 48h  | 14,22 | mg/l |          | QSAR        |       |

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|  |         |  |      |  |  |  |   |
|--|---------|--|------|--|--|--|---|
| 12.3. Bioaccumulative potential:         | Log Pow |  | 2,98 |  |  |  | A notable biological accumulation potential is not to be expected (LogPow 1-3). |
| 12.4. Mobility in soil:                  |         |  |      |  |  |  | Not to be expected  |
| 12.5. Results of PBT and vPvB assessment |         |  |      |  |  |  | No PBT substance, No vPvB substance   |

| Propane                                  |          |      |       |      |          |             |   |
|--|----------|------|-------|------|----------|-------------|---|
| Toxicity / effect                        | Endpoint | Time | Value | Unit | Organism | Test method | Notes   |
| 12.3. Bioaccumulative potential:         | Log Pow  |      | 2,28  |      |          |             | A notable biological accumulation potential is not to be expected (LogPow 1-3). |
| 12.5. Results of PBT and vPvB assessment |          |      |       |      |          |             | No PBT substance, No vPvB substance   |

| Isobutane                                |          |      |       |      |          |             |   |
|--|----------|------|-------|------|----------|-------------|---|
| Toxicity / effect                        | Endpoint | Time | Value | Unit | Organism | Test method | Notes   |
| 12.3. Bioaccumulative potential:         |          |      |       |      |          |             | A notable biological accumulation potential is not to be expected (LogPow 1-3). |
| 12.1. Toxicity to fish:                  | LC50     | 96h  | 27,98 | mg/l |          |             |   |
| 12.1. Toxicity to algae:                 | EC50     | 96h  | 7,71  | mg/l |          |             |   |
| 12.2. Persistence and degradability:     |          |      |       |      |          |             | Readily biodegradable   |
| 12.5. Results of PBT and vPvB assessment |          |      |       |      |          |             | No PBT substance, No vPvB substance   |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

08 01 11 waste paint and varnish containing organic solvents or other hazardous substances

16 05 04 gases in pressure containers (including halons) containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

#### For contaminated packing material

Pay attention to local and national official regulations.

15 01 04 metallic packaging

Recycling

Do not perforate, cut up or weld uncleaned container.

## SECTION 14: Transport information

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**General statements**

14.1. UN number or ID number: 1950

**Transport by road/by rail (ADR/RID)**

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es):

2.1



14.4. Packing group:

-

Classification code:

5F

LQ:

1 L

14.5. Environmental hazards:

Not applicable

Tunnel restriction code:

D

**Transport by sea (IMDG-code)**

14.2. UN proper shipping name:

AEROSOLS

14.3. Transport hazard class(es):

2.1



14.4. Packing group:

-

EmS:

F-D, S-U

Marine Pollutant:

n.a

14.5. Environmental hazards:

Not applicable

**Transport by air (IATA)**

14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es):

2.1



14.4. Packing group:

-

14.5. Environmental hazards:

Not applicable

**14.6. Special precautions for user**

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

**14.7. Maritime transport in bulk according to IMO instruments**

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

**SECTION 15: Regulatory information**

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!  
 This product is regulated by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.  
 For exceptions see Regulation (EU) 2019/1148 and guidelines for the implementation of Regulation (EU) 2019/1148.  
 Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!  
 Comply with trade association/occupational health regulations.

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

| Hazard categories | Notes to Annex I | Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements | Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements |
|-------------------|------------------|---|---|
| P3a               | 11.1             | 150 (netto)   | 500 (netto)   |

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

Directive 2012/18/EU ("Seveso III"), Annex I, Part 2 - This product contains the substances listed below:

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| Entry Nr | Dangerous substances   | Notes to Annex I | Qualifying quantity (tonnes) for the application of - Lower-tier requirements | Qualifying quantity (tonnes) for the application of - Upper-tier requirements |
|----------|--|------------------|---|---|
| 18       | Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas | 19               | 50  | 200   |

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

Directive 2010/75/EU (VOC): 72,86 %

Observe incident regulations.

## 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections: 8  
 Employee training in handling dangerous goods is required.  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.

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

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used                              |
|---|---|
| Eye Irrit. 2, H319  | Classification according to calculation procedure.  |
| STOT SE 3, H336   | Classification according to calculation procedure.  |
| Aquatic Chronic 3, H412   | Classification according to calculation procedure.  |
| Aerosol 1, H222   | Classification according to calculation procedure.  |
| Aerosol 1, H229   | Classification based on the form or physical state. |

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

H225 Highly flammable liquid and vapour.  
 H226 Flammable liquid and vapour.  
 H351 Suspected of causing cancer by inhalation.  
 H304 May be fatal if swallowed and enters airways.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H220 Extremely flammable gas.  
 EUH066 Repeated exposure may cause skin dryness or cracking.

Eye Irrit. — Eye irritation  
 STOT SE — Specific target organ toxicity - single exposure - narcotic effects  
 Aquatic Chronic — Hazardous to the aquatic environment - chronic  
 Aerosol — Aerosols  
 Flam. Liq. — Flammable liquid  
 Flam. Gas — Flammable gases - Flammable gas

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Acute Tox. — Acute toxicity - dermal  
Acute Tox. — Acute toxicity - inhalation  
Skin Irrit. — Skin irritation  
STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation  
STOT RE — Specific target organ toxicity - repeated exposure  
Asp. Tox. — Aspiration hazard  
Carc. — Carcinogenicity  
Aquatic Acute — Hazardous to the aquatic environment - acute  
Eye Dam. — Serious eye damage

### Key literature references and sources for data:

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

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### Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

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

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

BCF Bioconcentration factor  
 BSEF The International Bromine Council  
 bw body weight  
 CAS Chemical Abstracts Service  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EbCx, EyCx, EBLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)  
 EC European Community  
 ECHA European Chemicals Agency  
 ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect  
 EEC European Economic Community  
 EINECS European Inventory of Existing Commercial Chemical Substances  
 ELINCS European List of Notified Chemical Substances  
 EN European Norms  
 EPA United States Environmental Protection Agency (United States of America)  
 ErCx, EµCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)  
 etc. et cetera  
 EU European Union  
 EVAL Ethylene-vinyl alcohol copolymer  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 Koc Adsorption coefficient of organic carbon in the soil  
 Kow octanol-water partition coefficient  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC (Code) International Bulk Chemical (Code)  
 IMDG-code International Maritime Code for Dangerous Goods  
 incl. including, inclusive  
 IUCLID International Uniform Chemical Information Database  
 IUPAC International Union for Pure Applied Chemistry  
 LC50 Lethal Concentration to 50 % of a test population  
 LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)  
 Log Koc Logarithm of adsorption coefficient of organic carbon in the soil  
 Log Kow, Log Pow Logarithm of octanol-water partition coefficient  
 LQ Limited Quantities  
 MARPOL International Convention for the Prevention of Marine Pollution from Ships  
 n.a. not applicable  
 n.av. not available  
 n.c. not checked  
 n.d.a. no data available  
 NIOSH National Institute for Occupational Safety and Health (USA)  
 NLP No-longer-Polymer  
 NOEC, NOEL No Observed Effect Concentration/Level  
 OECD Organisation for Economic Co-operation and Development  
 org. organic  
 OSHA Occupational Safety and Health Administration (USA)  
 PBT persistent, bioaccumulative and toxic  
 PE Polyethylene  
 PNEC Predicted No Effect Concentration  
 ppm parts per million  
 PVC Polyvinylchloride  
 REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
 REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
 RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
 SVHC Substances of Very High Concern



GB

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

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Thick Film Lacquer 4-in-1 Carmine red RAL 3002 L222

400 ml Art.: 6210 2404, Art.: 6214 2404

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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