



# SAFETY DATA SHEET

Version #: 02

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

### 1.1. Product identifier

**Trade name or designation of the mixture** INK EFI PROGRAPHICS UV POP V2 CYAN

**Registration number** -

**UFI:** EU: W5AN-85H0-R64J-HRNX

**Synonyms** None.

**Product code** 45172553

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

**Identified uses** Printing ink

**Uses advised against** None known.

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

**Company** EFI UK Ltd  
**Address** Bowling Old Lane  
Bradford  
West Yorkshire  
BD5 7JL  
United Kingdom

**Phone Number - General** +44 1274 307704

**Phone Number -  
Emergency**

### 1.4. Emergency telephone number

**3E Global Incident Response** +1 760 476 3962 Access Code: 57138. Available 24/7/365

**General in EU** 112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

**Austria National Poisons Information Centre** +431 406 4343 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

**Great Britain General emergency** 112 or 999 SDS/Product information may not be available for the Emergency Service.

**Italy CAV Policlinico "A. Gemelli"** 06-3054343 <https://preparatipericolosi.iss.it/cav.aspx>: (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

**Belgium National Poisons Control Centre** 070 245 245 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

**Bulgaria National Toxicological Information Centre** +359 2 9154 233 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

**Croatia Poisons Information Centre** +385 1 2348 342 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

**Cyprus Poison Centre** 1401 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

**Czech Republic National Poisons Information Centre** +420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

**Denmark National Poisons Control Centre** +45 82 12 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

#### 1.4. Emergency telephone number

|                                                               |                                                                                                                                                                                           |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Estonia National Poisons Information Centre</b>            | 16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays). SDS/Product information may not be available for the Emergency Service.) |
| <b>Finland National Poison Information Centre</b>             | (09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                         |
| <b>France National Poisons Control Centre</b>                 | ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                          |
| <b>Greece Poison Information Centre telephone number</b>      | (0030) 2107793777 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                     |
| <b>Hungary National Emergency Phone Number</b>                | +36-80-201-199 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                        |
| <b>Iceland Poison Centre</b>                                  | (+354) 543 2222 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                       |
| <b>Latvia Emergency medical aid</b>                           | 113                                                                                                                                                                                       |
| <b>Latvia Poison and Drug Information Centre</b>              | +371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                         |
| <b>Lithuania Neatidėliotina informacija apsinuodijus</b>      | +370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)                                               |
| <b>Malta Accident and Emergency Department</b>                | 2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)                                                                      |
| <b>Netherlands National Poisons Information Centre (NVIC)</b> | NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)                                                                            |
| <b>Norway Norwegian Poison Information Centre</b>             | 22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                           |
| <b>Portugal Poison Centre</b>                                 | 800 250 250 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                           |
| <b>Romania Biroul RSI si Informare Toxicologica</b>           | 021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.)                                                                          |
| <b>Slovakia National Toxicological Information Centre</b>     | +421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                      |
| <b>Spain Toxicology Information Service</b>                   | + 34 91 562 04 20 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                     |
| <b>Sweden National Poison Information Centre</b>              | 112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                  |
| <b>Switzerland Tox Info Suisse</b>                            | 145 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)                                                                                   |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies. The classification of the substance or mixture has been performed in accordance with ABNT NBR 14725.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

|                                                     |             |                                                             |
|-----------------------------------------------------|-------------|-------------------------------------------------------------|
| Acute toxicity, oral                                | Category 4  | H302 - Harmful if swallowed.                                |
| Skin corrosion/irritation                           | Category 2  | H315 - Causes skin irritation.                              |
| Serious eye damage/eye irritation                   | Category 2  | H319 - Causes serious eye irritation.                       |
| Skin sensitisation                                  | Category 1  | H317 - May cause an allergic skin reaction.                 |
| Reproductive toxicity (fertility, the unborn child) | Category 1B | H360FD - May damage fertility. May damage the unborn child. |

Specific target organ toxicity - repeated exposure

Category 2

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

### Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard

Category 2

H411 - Toxic to aquatic life with long lasting effects.

## 2.2. Label elements

### Label according to Regulation (EC) No. 1272/2008 as amended

#### UFI:

EU: W5AN-85H0-R64J-HRNX

#### Contains:

2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester, hexamethylene diacrylate; hexane-1,6-diol diacrylate, (5-Ethyl-1,3-dioxan-5-yl)methyl acrylate, Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide, N-vinyl Caprolactam, 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer, Caprolactone acrylate, Neopentylglycol Propoxylated Diacrylate, 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate, Glycerol, Propoxylated, Esters With Acrylic Acid, tetrahydro-2-furyl-methanol; tetrahydrofurfuryl alcohol, 2,6-bis(1,1-dimethylethyl)-4-(phenylenemethylene)cyclohexa-2,5-dien-1-one, Ethylene Glycol Diacrylate

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

|        |                                                                    |
|--------|--------------------------------------------------------------------|
| H302   | Harmful if swallowed.                                              |
| H315   | Causes skin irritation.                                            |
| H317   | May cause an allergic skin reaction.                               |
| H319   | Causes serious eye irritation.                                     |
| H360FD | May damage fertility. May damage the unborn child.                 |
| H373   | May cause damage to organs through prolonged or repeated exposure. |
| H411   | Toxic to aquatic life with long lasting effects.                   |

### Precautionary statements

#### Prevention

|      |                                                                                               |
|------|-----------------------------------------------------------------------------------------------|
| P201 | Obtain special instructions before use.                                                       |
| P202 | Do not handle until all safety precautions have been read and understood.                     |
| P260 | Do not breathe mist/vapours.                                                                  |
| P264 | Wash thoroughly after handling.                                                               |
| P270 | Do not eat, drink or smoke when using this product.                                           |
| P272 | Contaminated work clothing should not be allowed out of the workplace.                        |
| P273 | Avoid release to the environment.                                                             |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |

#### Response

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P301 + P312        | IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.                                                                    |
| P330               | Rinse mouth.                                                                                                                     |
| P302 + P352        | IF ON SKIN: Wash with plenty of water.                                                                                           |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313        | IF exposed or concerned: Get medical advice/attention.                                                                           |
| P333 + P313        | If skin irritation or rash occurs: Get medical advice/attention.                                                                 |
| P337 + P313        | If eye irritation persists: Get medical advice/attention.                                                                        |
| P362 + P364        | Take off contaminated clothing and wash it before reuse.                                                                         |
| P391               | Collect spillage.                                                                                                                |

#### Storage

|      |                  |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

#### Disposal

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

**Supplemental label information** Restricted to professional users. 13,87 % of the mixture consists of component(s) of unknown acute oral toxicity. 13,6 % of the mixture consists of component(s) of unknown acute dermal toxicity. 4,08 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 84,83 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 27,76 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

**2.3. Other hazards** The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General information

| Chemical name                                                                                                                                          | %         | CAS-No. / EC No.        | REACH Registration No. | Index No.    | Notes                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------|------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-propenoic Acid,<br>(tetrahydro-2-furanyl)methyl Ester                                                                                                | 40 - < 50 | 2399-48-6<br>219-268-7  | 01-2120738396-46-XXXX  | -            | <b>Classification:</b> Acute Tox. 4;H302;(ATE: 882 mg/kg bw), Skin Corr. 1;H314, Eye Dam. 1;H318, Skin Sens. 1;H317, Repr. 1B;H360, Aquatic Chronic 2;H411                                                                              |
| hexamethylene diacrylate;<br>hexane-1,6-diol diacrylate                                                                                                | 10 - < 20 | 13048-33-4<br>235-921-9 | 01-2119484737-22-XXXX  | 607-109-00-8 | <b>Classification:</b> Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317, Aquatic Acute 1;H400, Aquatic Chronic 2;H411                                                                                                           |
| (5-Ethyl-1,3-dioxan-5-yl)methyl<br>acrylate                                                                                                            | 5 - < 10  | 66492-51-1<br>266-380-7 | 01-2119976303-36-XXXX  | -            | <b>Classification:</b> Skin Irrit. 2;H315, Skin Sens. 1;H317, Aquatic Chronic 2;H411                                                                                                                                                    |
| Diphenyl(2,4,6-trimethylbenzoyl)phos<br>phine oxide                                                                                                    | 5 - < 10  | 75980-60-8<br>278-355-8 | 01-2119972295-29-XXXX  | 015-203-00-X | <b>Classification:</b> Skin Sens. 1B;H317, Repr. 1B;H360Fd, Aquatic Chronic 2;H411                                                                                                                                                      |
| N-vinyl Caprolactam                                                                                                                                    | 5 - < 10  | 2235-00-9<br>218-787-6  | 01-2119977109-27-XXXX  | -            | <b>Classification:</b> Acute Tox. 4;H302;(ATE: 1114 mg/kg bw), Acute Tox. 4;H312;(ATE: 1700 mg/kg bw), Eye Irrit. 2;H319, Skin Sens. 1B;H317, STOT RE 1;H372                                                                            |
| 1-Propanone,<br>2-hydroxy-2-methyl-1-[4-(1-methyleth<br>enyl)phenyl]-, homopolymer                                                                     | 1 - < 3   | 163702-01-0<br>-        | 01-2120016508-60-XXXX  | -            | <b>Classification:</b> Repr. 2;H361f, Aquatic Chronic 2;H411                                                                                                                                                                            |
| Caprolactone acrylate                                                                                                                                  | 1 - < 3   | 110489-05-9<br>-        | -                      | -            | <b>Classification:</b> Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317                                                                                                                                                         |
| Neopentylglycol Propoxylated<br>Diacrylate                                                                                                             | 1 - < 3   | 84170-74-1<br>-         | 01-2119970213-43-XXXX  | 607-133-00-9 | <b>Classification:</b> Skin Sens. 1B;H317                                                                                                                                                                                               |
| Proprietary aminoacrylate oligomer                                                                                                                     | 1 - < 3   | P45138388-A<br>-        | -                      | -            | <b>Classification:</b> Skin Irrit. 2;H315, Eye Irrit. 2;H319                                                                                                                                                                            |
| 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-<br>propanediyl diacrylate;<br>2,2-bis(acryloyloxymethyl)butyl<br>acrylate; trimethylolpropane<br>triacrylate | < 1       | 15625-89-5<br>239-701-3 | 01-2119489896-11-XXXX  | 607-111-00-9 | <b>Classification:</b> Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317, Carc. 2;H351, STOT SE 3;H335, Aquatic Acute 1;H400(M=1), Aquatic Chronic 1;H410(M=1)<br><b>Specific Concentration Limits:</b> STOT SE 3;H335: C ≥ 10 % |
| Glycerol, Propoxylated, Esters With<br>Acrylic Acid                                                                                                    | < 1       | 52408-84-1<br>500-114-5 | 01-2119487948-12-XXXX  | -            | <b>Classification:</b> Eye Irrit. 2;H319, Skin Sens. 1;H317                                                                                                                                                                             |

| Chemical name                                                                                                                                                                                                                                               | %         | CAS-No. / EC No.        | REACH Registration No. | Index No.    | Notes |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------|------------------------|--------------|-------|
| tetrahydro-2-furyl-methanol;<br>tetrahydrofurfuryl alcohol                                                                                                                                                                                                  | < 1       | 97-99-4<br>202-625-6    | 01-2119968921-26-XXXX  | 603-061-00-7 |       |
| <b>Classification:</b> Eye Irrit. 2;H319, Repr. 1B;H360Df                                                                                                                                                                                                   |           |                         |                        |              |       |
| 2,6-bis(1,1-dimethylethyl)-4-(phenylene)methylene)cyclohexa-2,5-diene                                                                                                                                                                                       | < 0,3     | 7078-98-0<br>429-460-4  | 01-2119450089-37-XXXX  | 606-117-00-9 |       |
| <b>Classification:</b> Skin Sens. 1;H317, Aquatic Chronic 4;H413                                                                                                                                                                                            |           |                         |                        |              |       |
| 2,6-di-tert-butyl-p-cresol                                                                                                                                                                                                                                  | < 0,2     | 128-37-0<br>204-881-4   | 01-2119565113-46-XXXX  | -            |       |
| <b>Classification:</b> Aquatic Acute 1;H400, Aquatic Chronic 1;H410                                                                                                                                                                                         |           |                         |                        |              |       |
| 2-hydroxyethyl acrylate                                                                                                                                                                                                                                     | < 0,2     | 818-61-1<br>212-454-9   | 01-2119459345-34-XXXX  | 607-072-00-8 |       |
| <b>Classification:</b> Acute Tox. 4;H302;(ATE: 500 mg/kg bw), Acute Tox. 3;H311;(ATE: 300 mg/kg bw), Skin Corr. 1B;H314, Eye Dam. 1;H318, Skin Sens. 1;H317, Aquatic Acute 1;H400, Aquatic Chronic 3;H412                                                   |           |                         |                        |              |       |
| <b>Specific Concentration Limits:</b> Skin Sens. 1;H317: C ≥ 0.2 %                                                                                                                                                                                          |           |                         |                        |              |       |
| Ethylene Glycol Diacrylate                                                                                                                                                                                                                                  | < 0,2     | 2274-11-5<br>218-886-4  | -                      | 607-133-00-9 |       |
| <b>Classification:</b> Acute Tox. 3;H301;(ATE: 100 mg/kg bw), Acute Tox. 3;H311;(ATE: 300 mg/kg bw), Eye Dam. 1;H318, Skin Sens. 1;H317                                                                                                                     |           |                         |                        |              |       |
| <b>Specific Concentration Limits:</b> STOT SE 3;H335: C ≥ 10 %                                                                                                                                                                                              |           |                         |                        |              |       |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8] 3-ethylpentane;<br>[9] isoheptane; [10] | < 0,2     | 142-82-5<br>205-563-8   | -                      | 601-008-00-2 | #     |
| <b>Classification:</b> Flam. Liq. 2;H225, Skin Irrit. 2;H315, STOT SE 3;H336, Asp. Tox. 1;H304, Aquatic Acute 1;H400, Aquatic Chronic 1;H410                                                                                                                |           |                         |                        |              |       |
| Hydrogen<br>[29H,31H-phthalocyaninesulphonato<br>(3-)-N29,N30,N31,N32]cuprate(1-),<br>Compound With Dodecylamine (1:1)                                                                                                                                      | < 0,2     | 73455-75-1<br>277-475-8 | 01-2120101495-65-XXXX  | -            |       |
| <b>Classification:</b> Aquatic Acute 1;H400(M=1), Aquatic Chronic 1;H410(M=1)                                                                                                                                                                               |           |                         |                        |              |       |
| The remaining ingredients are either non-hazardous or below reportable limits                                                                                                                                                                               | 10 - < 20 |                         |                        |              |       |

#### List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Union workplace exposure limit(s).

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### Composition comments

The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

#### General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

#### 4.1. Description of first aid measures

##### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

|                                                                                        |                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin contact</b>                                                                    | Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.                               |
| <b>Eye contact</b>                                                                     | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.                                                     |
| <b>Ingestion</b>                                                                       | Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.                                                                                                     |
| <b>4.2. Most important symptoms and effects, both acute and delayed</b>                | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects. |
| <b>4.3. Indication of any immediate medical attention and special treatment needed</b> | Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.                                                                                                                |

## SECTION 5: Firefighting measures

|                                                                   |                                                                                            |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>General fire hazards</b>                                       | No unusual fire or explosion hazards noted.                                                |
| <b>5.1. Extinguishing media</b>                                   |                                                                                            |
| <b>Suitable extinguishing media</b>                               | Use extinguishing agent suitable for type of surrounding fire.                             |
| <b>Unsuitable extinguishing media</b>                             | None known.                                                                                |
| <b>5.2. Special hazards arising from the substance or mixture</b> | Not available.                                                                             |
| <b>5.3. Advice for firefighters</b>                               |                                                                                            |
| <b>Special protective equipment for firefighters</b>              | Wear suitable protective equipment.                                                        |
| <b>Special fire fighting procedures</b>                           | Move containers from fire area if you can do so without risk.                              |
| <b>Specific methods</b>                                           | Use standard firefighting procedures and consider the hazards of other involved materials. |

## SECTION 6: Accidental release measures

|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>6.1. Personal precautions, protective equipment and emergency procedures</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>For non-emergency personnel</b>                                              | Do not breathe mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.                                                                                                                                                                                                                                                                                                                                          |
| <b>For emergency responders</b>                                                 | Keep unnecessary personnel away. Ensure adequate ventilation. Avoid breathing mist/vapours. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.                                                                                                                                                                                                                                                                               |
| <b>6.2. Environmental precautions</b>                                           | Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.                                                                                                                                                                                                                                                                             |
| <b>6.3. Methods and material for containment and cleaning up</b>                | Prevent entry into waterways, sewer, basements or confined areas.<br><br>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. |
| <b>6.4. Reference to other sections</b>                                         | For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.                                                                                                                                                                                                                                                                                                                                                                                                                        |

## SECTION 7: Handling and storage

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>7.1. Precautions for safe handling</b> | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapours. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**7.2. Conditions for safe storage, including any incompatibilities** Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

ANNEX 1, PART 1 Categories of dangerous substances  
Hazard categories in accordance with Regulation (EC) No 1272/2008  
- E2 Hazardous to the Aquatic Environment Chronic (Lower-tier requirements = 200 tonnes;  
Upper-tier requirements = 500 tonnes)

**7.3. Specific end use(s)** Observe industrial sector guidance on best practices.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

**Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001, as amended**

| Components                                                                                                                                                                                                                                                                    | Type | Value                             | Form                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------|---------------------------|
| (29H,31H-phthalocyaninato (2-)-N29,N30,N31,N32)copper (pigment Blue 15; Ci 74160) (CAS 147-14-8)                                                                                                                                                                              | MAK  | 1 mg/m3                           | Inhalable fraction.       |
|                                                                                                                                                                                                                                                                               |      | 0,1 mg/m3                         | Fume and respirable dust. |
|                                                                                                                                                                                                                                                                               | STEL | 4 mg/m3                           | Inhalable fraction.       |
|                                                                                                                                                                                                                                                                               |      | 0,4 mg/m3                         | Fume and respirable dust. |
| 2,6-di-tert-butyl-p-cresol (CAS 128-37-0)                                                                                                                                                                                                                                     | MAK  | 10 mg/m3                          |                           |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS 142-82-5) | MAK  | 2000 mg/m3                        |                           |
|                                                                                                                                                                                                                                                                               | STEL | 500 ppm<br>8000 mg/m3<br>2000 ppm |                           |
| Hydrogen<br>[29H,31H-phthalocyanines ulphonato(3-)-N29,N30,N31,N32]cuprate(1-), Compound With Dodecylamine (1:1) (CAS 73455-75-1)                                                                                                                                             | MAK  | 1 mg/m3                           | Inhalable fraction.       |
|                                                                                                                                                                                                                                                                               |      | 0,1 mg/m3                         | Fume and respirable dust. |
|                                                                                                                                                                                                                                                                               | STEL | 4 mg/m3                           | Inhalable fraction.       |
|                                                                                                                                                                                                                                                                               |      | 0,4 mg/m3                         | Fume and respirable dust. |

**Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended**

| Components                                | Type | Value   | Form                |
|-------------------------------------------|------|---------|---------------------|
| 2,6-di-tert-butyl-p-cresol (CAS 128-37-0) | TWA  | 2 mg/m3 | Vapour and aerosol. |

**Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value                            | Form |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------|------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 2085 mg/m3                       |      |
|                                                                                                                                                                                                                                                                                  | TWA  | 500 ppm<br>1664 mg/m3<br>400 ppm |      |

**Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | STEL | 50 mg/m3   |
|                                                                                                                                                                                                                                                                                  | TWA  | 10 mg/m3   |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 1600 mg/m3 |

**Croatia. OELs (GVI). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and Biological Limit Values, Annex I (NN 91/2018), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | MAC  | 10 mg/m3   |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | MAC  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**Cyprus. OELs. Occupational Exposure Limit Values of Chemicals at Work (Safety and Health at Work (Chem. Agents) Reg., Ann. 1, R.A.A. 268/2001, as amended)**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)**

| Components                                                                                                                                                                                                                                                                       | Type    | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | Ceiling | 2000 mg/m3 |
|                                                                                                                                                                                                                                                                                  |         | 480 ppm    |
|                                                                                                                                                                                                                                                                                  | TWA     | 1000 mg/m3 |
|                                                                                                                                                                                                                                                                                  |         | 240 ppm    |

**Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | STEL | 20 mg/m3   |
|                                                                                                                                                                                                                                                                                  | TLV  | 10 mg/m3   |
| 2-hydroxyethyl acrylate<br>(CAS 818-61-1)                                                                                                                                                                                                                                        | STEL | 10 mg/m3   |
|                                                                                                                                                                                                                                                                                  |      | 2 ppm      |
|                                                                                                                                                                                                                                                                                  | TLV  | 5 mg/m3    |
|                                                                                                                                                                                                                                                                                  |      | 1 ppm      |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 1640 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 400 ppm    |
|                                                                                                                                                                                                                                                                                  | TLV  | 820 mg/m3  |
|                                                                                                                                                                                                                                                                                  |      | 200 ppm    |

**Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended**

| Components                                | Type | Value    |
|-------------------------------------------|------|----------|
| 2-hydroxyethyl acrylate<br>(CAS 818-61-1) | STEL | 10 mg/m3 |

**Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
|                                                                                                                                                                                                                                                                                  |      | 2 ppm      |
|                                                                                                                                                                                                                                                                                  | TWA  | 5 mg/m3    |
|                                                                                                                                                                                                                                                                                  |      | 1 ppm      |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|-------------|
| (29H,31H-phthalocyaninato<br>(2-)-<br>N29,N30,N31,N32)copper<br>(pigment Blue 15; Ci<br>74160) (CAS 147-14-8)                                                                                                                                                                    | TWA  | 0,02 mg/m3 | Respirable. |
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | STEL | 20 mg/m3   |             |
|                                                                                                                                                                                                                                                                                  | TWA  | 10 mg/m3   |             |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 2100 mg/m3 |             |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |             |
|                                                                                                                                                                                                                                                                                  | TWA  | 1200 mg/m3 |             |
|                                                                                                                                                                                                                                                                                  |      | 300 ppm    |             |
| Hydrogen<br>[29H,31H-phthalocyanines<br>ulphonato(3-)-N29,N30,N3<br>1,N32]cuprate(1-),<br>Compound With<br>Dodecylamine (1:1) (CAS<br>73455-75-1)                                                                                                                                | TWA  | 0,02 mg/m3 | Respirable. |

**France. OELs. Occupational Exposure Limits as Prescribed by Art. R.4412-149 of Labor Code, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | VLE  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**France. OELs. Occupational Exposure Limits as Prescribed by Art. R.4412-149 of Labor Code, as amended**

| Components | Type | Value      |
|------------|------|------------|
|            | VME  | 1668 mg/m3 |
|            |      | 400 ppm    |

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | VLE  | 2085 mg/m3 |

**Regulatory status:** Binding regulatory limit values (article R. 4412-149 of the Labor Code)  
500 ppm

**Regulatory status:** Binding regulatory limit values (article R. 4412-149 of the Labor Code)

**Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|-------------------------------------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 10 mg/m3   | Vapor and aerosol,<br>inhalable fraction. |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2100 mg/m3 |                                           |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |                                           |

**Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|-------------------------------------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | AGW  | 10 mg/m3   | Vapor and aerosol,<br>inhalable fraction. |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | AGW  | 2100 mg/m3 |                                           |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |                                           |

**Greece. OELs, Presidential Decree No. 307/1986, as amended**

| Components                                   | Type | Value    |
|----------------------------------------------|------|----------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0) | TWA  | 10 mg/m3 |

**Greece. OELs, Presidential Decree No. 307/1986, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 2000 mg/m3                       |
|                                                                                                                                                                                                                                                                                  | TWA  | 500 ppm<br>2000 mg/m3<br>500 ppm |

**Hungary. OELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 1&2, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| (29H,31H-phthalocyaninato<br>(2-)-<br>N29,N30,N31,N32)copper<br>(pigment Blue 15; Ci<br>74160) (CAS 147-14-8)                                                                                                                                                                    | STEL | 0,2 mg/m3  |
|                                                                                                                                                                                                                                                                                  | TWA  | 0,1 mg/m3  |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2000 mg/m3 |
| Hydrogen<br>[29H,31H-phthalocyanines<br>ulphonato(3-)-N29,N30,N3<br>1,N32]cuprate(1-),<br>Compound With<br>Dodecylamine (1:1) (CAS<br>73455-75-1)                                                                                                                                | STEL | 0,2 mg/m3  |
|                                                                                                                                                                                                                                                                                  | TWA  | 0,1 mg/m3  |

**Iceland. OELs. Regulation 390/2009 on Pollution Limits and Measures to Reduce Pollution at the Workplace, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 10 mg/m3                                                      |
| 2-hydroxyethyl acrylate<br>(CAS 818-61-1)                                                                                                                                                                                                                                        | TWA  | 5 mg/m3                                                       |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 1 ppm<br>820 mg/m3<br><br><br><br><br><br><br><br><br>200 ppm |

**Ireland. OELVs, Schedules 1 & 2, Code of Practice for Chemical Agents and Carcinogens Regulations**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 2 mg/m3    |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**Italy. OELs (Legislative Decree n.81, 9 April 2008), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|-----------------------------------|
| (29H,31H-phthalocyaninato<br>(2-)-<br>N29,N30,N31,N32)copper<br>(pigment Blue 15; Ci<br>74160) (CAS 147-14-8)                                                                                                                                                                    | TWA  | 1 mg/m3    | Dust and mist.                    |
|                                                                                                                                                                                                                                                                                  |      | 0,2 mg/m3  | Fume.                             |
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 2 mg/m3    | Inhalable fraction and<br>vapour. |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 500 ppm    |                                   |
|                                                                                                                                                                                                                                                                                  | TWA  | 2085 mg/m3 |                                   |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |                                   |
| Hydrogen<br>[29H,31H-phthalocyanines<br>ulphonato(3-)-N29,N30,N3<br>1,N32]cuprate(1-),<br>Compound With<br>Dodecylamine (1:1) (CAS<br>73455-75-1)                                                                                                                                | TWA  | 1 mg/m3    | Dust and mist.                    |
|                                                                                                                                                                                                                                                                                  |      | 0,2 mg/m3  | Fume.                             |

**Latvia. OELs. Occupational Exposure Limits of Chemical Substances at Workplace (Reg. No. 325/ 2007, L.V. 80, Annex 1), as amended**

| Components                                                                                                    | Type | Value     |
|---------------------------------------------------------------------------------------------------------------|------|-----------|
| (29H,31H-phthalocyaninato<br>(2-)-<br>N29,N30,N31,N32)copper<br>(pigment Blue 15; Ci<br>74160) (CAS 147-14-8) | TWA  | 5 mg/m3   |
| 2-hydroxyethyl acrylate<br>(CAS 818-61-1)                                                                     | TWA  | 0,5 mg/m3 |

**Latvia. OELs. Occupational Exposure Limits of Chemical Substances at Workplace (Reg. No. 325/ 2007, L.V. 80, Annex 1), as amended**

| Components                                                                                                                                                                                                                                                                    | Type | Value      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS 142-82-5) | STEL | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                               |      | 500 ppm    |
|                                                                                                                                                                                                                                                                               | TWA  | 350 mg/m3  |
|                                                                                                                                                                                                                                                                               |      | 85 ppm     |

**Lithuania. OELs. Occupational Exposure Limit Values for Chemical Substances (Hygiene Norm HN 23:2011; Order No. V-824/A1-389), as amended**

| Components                                                                                                                                                                                                                                                                    | Type | Value      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| (29H,31H-phthalocyaninato (2-)-N29,N30,N31,N32)copper (pigment Blue 15; Ci 74160) (CAS 147-14-8)                                                                                                                                                                              | TWA  | 5 mg/m3    |
| 2-hydroxyethyl acrylate (CAS 818-61-1)                                                                                                                                                                                                                                        | STEL | 10 mg/m3   |
|                                                                                                                                                                                                                                                                               |      | 2 ppm      |
|                                                                                                                                                                                                                                                                               | TWA  | 5 mg/m3    |
|                                                                                                                                                                                                                                                                               |      | 1 ppm      |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS 142-82-5) | STEL | 3128 mg/m3 |
|                                                                                                                                                                                                                                                                               |      | 750 ppm    |
|                                                                                                                                                                                                                                                                               | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                               |      | 500 ppm    |

**Luxembourg. OELs. Binding Occupational Exposure Limit Values (Annex I), G.D.R. of 14 November 2016, OJ Memorial A, n ° 235/2016, as amended**

| Components                                                                                                                                                                                                                                                                    | Type | Value      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS 142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                               |      | 500 ppm    |

**Malta. OELs. Protection of Health and Safety of Workers from Risks related to Chemical Agents at Work (L.N 227/2003 Schedules I and V), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3<br><br><br><br><br><br><br><br><br><br><br>500 ppm |

**Netherlands. OELs per Annex XIII of Working Conditions Regulation (Staatscourant no. 252, 29 December 2006), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 1600 mg/m3                       |
|                                                                                                                                                                                                                                                                                  | TWA  | 384 ppm<br>1200 mg/m3<br>288 ppm |

**Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TLV  | 800 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 200 ppm   |

**Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 2000 mg/m3 |
|                                                                                                                                                                                                                                                                                  | TWA  | 1200 mg/m3 |

**Portugal. Decree-Law No. 24/2012, Occupational Exposure Limit Values, Annex II, as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796-2014)**

| Components                                                                                                                                                                                                                                                                       | Type | Value   | Form                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|-----------------------------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 2 mg/m3 | Inhalable fraction and<br>vapour. |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 500 ppm |                                   |
|                                                                                                                                                                                                                                                                                  | TWA  | 400 ppm |                                   |

**Romania. OELs. Limit Values of Chemical Agents at Workplace (Regulation 1.218/2006, M.O 845, Annex 1, 3&4, as amended)**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Ann. I 100/2001), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|---------------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | KTV  | 40 mg/m3   | Inhalable fraction. |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | KTV  | 2085 mg/m3 |                     |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |                     |

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|---------------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 10 mg/m3   | Inhalable fraction. |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |                     |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |                     |

**Spain. OELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 1-Valores Límites Ambientales (VLAs)**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|----------------------|
| (29H,31H-phthalocyaninato<br>(2-)-<br>N29,N30,N31,N32)copper<br>(pigment Blue 15; Ci<br>74160) (CAS 147-14-8)                                                                                                                                                                    | TWA  | 0,01 mg/m3 | Respirable fraction. |
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 10 mg/m3   |                      |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |                      |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |                      |
| Hydrogen<br>[29H,31H-phthalocyanines<br>ulphonato(3-)-N29,N30,N3<br>1,N32]cuprate(1-),<br>Compound With<br>Dodecylamine (1:1) (CAS<br>73455-75-1)                                                                                                                                | TWA  | 0,01 mg/m3 | Respirable fraction. |

**Sweden. OELs (Annex 1). Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1), as amended**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 2-hydroxyethyl acrylate<br>(CAS 818-61-1)                                                                                                                                                                                                                                        | STEL | 10 mg/m3   |
|                                                                                                                                                                                                                                                                                  |      | 2 ppm      |
|                                                                                                                                                                                                                                                                                  | TWA  | 5 mg/m3    |
|                                                                                                                                                                                                                                                                                  |      | 1 ppm      |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 1200 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 300 ppm    |
|                                                                                                                                                                                                                                                                                  | TWA  | 800 mg/m3  |
|                                                                                                                                                                                                                                                                                  |      | 200 ppm    |

**Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte**

| Components                                                                                                                                                                                                                                                                       | Type | Value      | Form                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|----------------------------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | STEL | 40 mg/m3   | Vapor and aerosol,<br>inhalable. |
|                                                                                                                                                                                                                                                                                  | TWA  | 10 mg/m3   | Vapor and aerosol,<br>inhalable. |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | STEL | 1600 mg/m3 |                                  |
|                                                                                                                                                                                                                                                                                  |      | 400 ppm    |                                  |
|                                                                                                                                                                                                                                                                                  | TWA  | 1600 mg/m3 |                                  |
|                                                                                                                                                                                                                                                                                  |      | 400 ppm    |                                  |

**UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1**

| Components                                                                                                                                                                                                                                                                       | Type | Value      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 2,6-di-tert-butyl-p-cresol<br>(CAS 128-37-0)                                                                                                                                                                                                                                     | TWA  | 10 mg/m3   |
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3 |
|                                                                                                                                                                                                                                                                                  |      | 500 ppm    |

**EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU**

| Components                                                                                                                                                                                                                                                                       | Type | Value                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | TWA  | 2085 mg/m3<br><br><br><br><br><br><br><br><br><br><br>500 ppm |

**Biological limit values****Germany. TRGS 903, BAT List (Biological Limit Values)**

| Components                                                                                                                                                                                                                                                                       | Value    | Determinant         | Specimen | Sampling Time |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------|----------|---------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | 250 µg/l | Heptan-2,5-dio<br>n | Urine    | *             |

\* - For sampling details, please see the source document.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte**

| Components                                                                                                                                                                                                                                                                       | Value    | Determinant         | Specimen | Sampling Time |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------|----------|---------------|
| heptane; n-heptane; [1]<br>2,4-dimethylpentane; [2]<br>2,2,3-trimethylbutane; [3]<br>3,3-dimethylpentane; [4]<br>2,3-dimethylpentane; [5]<br>3-methylhexane; [6]<br>2,2-dimethylpentane; [7]<br>2-methylhexane; [8]<br>3-ethylpentane; [9]<br>isoheptane; [10] (CAS<br>142-82-5) | 200 µg/l | Heptan-2,5-dio<br>n | Urine    | *             |

\* - For sampling details, please see the source document.

**Recommended monitoring procedures** Follow standard monitoring procedures.

**Derived no effect levels (DNELs)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

**Exposure guidelines****Croatia ELVs: Skin designation**

heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10] (CAS 142-82-5) Can be absorbed through the skin.

**Denmark GV: Skin designation**

2-hydroxyethyl acrylate (CAS 818-61-1) Can be absorbed through the skin.

**Estonia OELs: Skin designation**

2-hydroxyethyl acrylate (CAS 818-61-1) Can be absorbed through the skin.

**Iceland OELs: Skin designation**

2-hydroxyethyl acrylate (CAS 818-61-1) Can be absorbed through the skin.

**Lithuania OELs: Skin designation**

2-hydroxyethyl acrylate (CAS 818-61-1)

Can be absorbed through the skin.

**Sweden Threshold Limit Values: Skin designation**

2-hydroxyethyl acrylate (CAS 818-61-1)

Can be absorbed through the skin.

**8.2. Exposure controls****Appropriate engineering controls**

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment****General information**

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection**

Chemical respirator with organic vapour cartridge and full facepiece.

**Skin protection****- Hand protection**

Wear appropriate chemical resistant gloves.

**- Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

Chemical respirator with organic vapour cartridge and full facepiece.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures**

Observe any medical surveillance requirements. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

**Environmental exposure controls**

Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                                                                 |                    |
|-----------------------------------------------------------------|--------------------|
| <b>Physical state</b>                                           | Liquid.            |
| <b>Form</b>                                                     | Liquid.            |
| <b>Colour</b>                                                   | Cyan               |
| <b>Odour</b>                                                    | Slight.            |
| <b>Melting point/freezing point</b>                             | Not available.     |
| <b>Boiling point or initial boiling point and boiling range</b> | Not available.     |
| <b>Flammability</b>                                             | Not applicable.    |
| <b>Upper/lower flammability or explosive limits</b>             |                    |
| <b>Explosive limit - lower ( %)</b>                             | Not available.     |
| <b>Explosive limit – upper (%)</b>                              | Not available.     |
| <b>Flash point</b>                                              | Not available.     |
| <b>Auto-ignition temperature</b>                                | Not available.     |
| <b>Decomposition temperature</b>                                | Not available.     |
| <b>pH</b>                                                       | Not available.     |
| <b>Kinematic viscosity</b>                                      | Not available.     |
| <b>Solubility</b>                                               |                    |
| <b>Solubility (water)</b>                                       | Not available.     |
| <b>Partition coefficient (n-octanol/water) (log value)</b>      | Not available.     |
| <b>Vapour pressure</b>                                          | 0,24 hPa estimated |

**Density and/or relative density**

Density 1,05 g/cm<sup>3</sup> estimated

Vapour density Not available.

Particle characteristics Not available.

**9.2. Other information**

**9.2.1. Information with regard to physical hazard classes** No relevant additional information available.

**9.2.2. Other safety characteristics**

Specific gravity 1,05 estimated

VOC 40,85 % Based on EU definition of VOC estimated

**SECTION 10: Stability and reactivity**

**10.1. Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability** Material is stable under normal conditions.

**10.3. Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid** Contact with incompatible materials.

**10.5. Incompatible materials** None known.

**10.6. Hazardous decomposition products** No hazardous decomposition products are known.

**SECTION 11: Toxicological information**

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

**Information on likely routes of exposure**

**Inhalation** Prolonged inhalation may be harmful.

**Skin contact** Causes skin irritation. May cause an allergic skin reaction.

**Eye contact** Causes serious eye irritation.

**Ingestion** Harmful if swallowed.

**Symptoms** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

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

**Acute toxicity** Harmful if swallowed.

| Components | Species | Test Results |
|------------|---------|--------------|
|------------|---------|--------------|

(5-Ethyl-1,3-dioxan-5-yl)methyl acrylate (CAS 66492-51-1)

**Acute****Oral**

|      |     |              |
|------|-----|--------------|
| LD50 | Rat | > 2000 mg/kg |
|------|-----|--------------|

1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (CAS 163702-01-0)

**Acute****Dermal**

|      |     |                        |
|------|-----|------------------------|
| LD50 | Rat | > 2000 mg/kg, 24 Hours |
|------|-----|------------------------|

**Oral**

|      |     |              |
|------|-----|--------------|
| LD50 | Rat | > 2000 mg/kg |
|------|-----|--------------|

2,6-bis(1,1-dimethylethyl)-4-(phenylenemethylene)cyclohexa-2,5-dien-1-one (CAS 7078-98-0)

**Acute****Dermal**

|      |        |                        |
|------|--------|------------------------|
| LD50 | Rabbit | > 2000 mg/kg, 24 Hours |
|------|--------|------------------------|

**Oral**

|      |     |              |
|------|-----|--------------|
| LD50 | Rat | > 5000 mg/kg |
|------|-----|--------------|

| Components                                                                                                                                                                                                                                         | Species | Test Results           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------------|
| 2,6-di-tert-butyl-p-cresol (CAS 128-37-0)                                                                                                                                                                                                          |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Dermal</b>                                                                                                                                                                                                                                      |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | > 2000 mg/kg, 4 Weeks  |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | > 2930 mg/kg           |
| 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate (CAS 15625-89-5)                                                                                         |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | 3680 mg/kg             |
| 2-hydroxyethyl acrylate (CAS 818-61-1)                                                                                                                                                                                                             |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | >= 500 mg/kg           |
| 2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester (CAS 2399-48-6)                                                                                                                                                                               |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | 882 mg/kg              |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (CAS 75980-60-8)                                                                                                                                                                                   |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Dermal</b>                                                                                                                                                                                                                                      |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | > 2000 mg/kg, 24 Hours |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | > 5000 mg/kg           |
| Glycerol, Propoxylated, Esters With Acrylic Acid (CAS 52408-84-1)                                                                                                                                                                                  |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Dermal</b>                                                                                                                                                                                                                                      |         |                        |
| LD50                                                                                                                                                                                                                                               | Rabbit  | > 2000 mg/kg, 24 Hours |
| heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10] (CAS 142-82-5) |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Dermal</b>                                                                                                                                                                                                                                      |         |                        |
| LD50                                                                                                                                                                                                                                               | Rabbit  | > 2000 mg/kg, 24 Hours |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | > 5000 mg/kg           |
| hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)                                                                                                                                                                              |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Dermal</b>                                                                                                                                                                                                                                      |         |                        |
| LD50                                                                                                                                                                                                                                               | Rabbit  | 3600 mg/kg             |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | 5 g/kg                 |
| Hydrogen [29H,31H-phthalocyaninesulphonato(3-)-N29,N30,N31,N32]cuprate(1-), Compound With Dodecylamine (1:1) (CAS 73455-75-1)                                                                                                                      |         |                        |
| <u>Acute</u>                                                                                                                                                                                                                                       |         |                        |
| <b>Dermal</b>                                                                                                                                                                                                                                      |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | > 2000 mg/kg, 24 Hours |
| <b>Oral</b>                                                                                                                                                                                                                                        |         |                        |
| LD50                                                                                                                                                                                                                                               | Rat     | > 2000 mg/kg           |

| Components                                                                                                                                                 | Species                                                                                                                                                                                                                                                                                                 | Test Results                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Neopentylglycol Propoxylated Diacrylate (CAS 84170-74-1)                                                                                                   |                                                                                                                                                                                                                                                                                                         |                                                     |
| <b>Acute</b>                                                                                                                                               |                                                                                                                                                                                                                                                                                                         |                                                     |
| <b>Dermal</b>                                                                                                                                              |                                                                                                                                                                                                                                                                                                         |                                                     |
| <i>Liquid</i>                                                                                                                                              |                                                                                                                                                                                                                                                                                                         |                                                     |
| LD50                                                                                                                                                       | Rabbit                                                                                                                                                                                                                                                                                                  | > 2000 mg/kg                                        |
| <b>Oral</b>                                                                                                                                                |                                                                                                                                                                                                                                                                                                         |                                                     |
| <i>Liquid</i>                                                                                                                                              |                                                                                                                                                                                                                                                                                                         |                                                     |
| LD50                                                                                                                                                       | Rat                                                                                                                                                                                                                                                                                                     | > 5000 mg/kg                                        |
| N-vinyl Caprolactam (CAS 2235-00-9)                                                                                                                        |                                                                                                                                                                                                                                                                                                         |                                                     |
| <b>Acute</b>                                                                                                                                               |                                                                                                                                                                                                                                                                                                         |                                                     |
| <b>Dermal</b>                                                                                                                                              |                                                                                                                                                                                                                                                                                                         |                                                     |
| LD50                                                                                                                                                       | Rabbit                                                                                                                                                                                                                                                                                                  | 1700 mg/kg, 24 Hours                                |
| <b>Oral</b>                                                                                                                                                |                                                                                                                                                                                                                                                                                                         |                                                     |
| LD50                                                                                                                                                       | Rat                                                                                                                                                                                                                                                                                                     | 1114 mg/kg                                          |
| <b>Skin corrosion/irritation</b>                                                                                                                           | Causes skin irritation.                                                                                                                                                                                                                                                                                 |                                                     |
| <b>Serious eye damage/eye irritation</b>                                                                                                                   | Causes serious eye irritation.                                                                                                                                                                                                                                                                          |                                                     |
| <b>Respiratory sensitisation</b>                                                                                                                           | Not a respiratory sensitiser.                                                                                                                                                                                                                                                                           |                                                     |
| <b>Skin sensitisation</b>                                                                                                                                  | May cause an allergic skin reaction.                                                                                                                                                                                                                                                                    |                                                     |
| <b>Germ cell mutagenicity</b>                                                                                                                              | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.                                                                                                                                                                                        |                                                     |
| <b>Carcinogenicity</b>                                                                                                                                     | No data available to indicate product or any components present at greater than 0.1% are carcinogenic. Risk of cancer cannot be excluded with prolonged exposure.                                                                                                                                       |                                                     |
| <b>Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)</b>                   |                                                                                                                                                                                                                                                                                                         |                                                     |
| tetrahydro-2-furyl-methanol; tetrahydrofurfuryl alcohol (CAS 97-99-4)                                                                                      |                                                                                                                                                                                                                                                                                                         |                                                     |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>                                                                                              |                                                                                                                                                                                                                                                                                                         |                                                     |
| 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate (CAS 15625-89-5) |                                                                                                                                                                                                                                                                                                         | 2B Possibly carcinogenic to humans.                 |
| 2,6-di-tert-butyl-p-cresol (CAS 128-37-0)                                                                                                                  |                                                                                                                                                                                                                                                                                                         | 3 Not classifiable as to carcinogenicity to humans. |
| <b>Reproductive toxicity</b>                                                                                                                               | May damage fertility. May damage the unborn child.                                                                                                                                                                                                                                                      |                                                     |
| <b>Specific target organ toxicity - single exposure</b>                                                                                                    | Not classified.                                                                                                                                                                                                                                                                                         |                                                     |
| <b>Specific target organ toxicity - repeated exposure</b>                                                                                                  | May cause damage to organs through prolonged or repeated exposure.                                                                                                                                                                                                                                      |                                                     |
| <b>Aspiration hazard</b>                                                                                                                                   | Not an aspiration hazard.                                                                                                                                                                                                                                                                               |                                                     |
| <b>Mixture versus substance information</b>                                                                                                                | No information available.                                                                                                                                                                                                                                                                               |                                                     |
| <b>11.2. Information on other hazards</b>                                                                                                                  |                                                                                                                                                                                                                                                                                                         |                                                     |
| <b>Endocrine disrupting properties</b>                                                                                                                     | This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight. |                                                     |
| <b>Other information</b>                                                                                                                                   | Not available.                                                                                                                                                                                                                                                                                          |                                                     |

## SECTION 12: Ecological information

**12.1. Toxicity** Toxic to aquatic life with long lasting effects.

| Components                                                | Species | Test Results                                          |
|-----------------------------------------------------------|---------|-------------------------------------------------------|
| (5-Ethyl-1,3-dioxan-5-yl)methyl acrylate (CAS 66492-51-1) |         |                                                       |
| <b>Aquatic</b>                                            |         |                                                       |
| <i>Acute</i>                                              |         |                                                       |
| Crustacea                                                 | EC50    | Daphnids (no species mentioned) 11,577 mg/l, 48 hours |
| Fish                                                      | LC50    | Fish 3,909 mg/l, 96 hours                             |

| Components                                                                                                                                                 | Species |                                | Test Results          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------|-----------------------|
| 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (CAS 163702-01-0)                                                              |         |                                |                       |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Fish                                                                                                                                                       | LC50    | Oncorhynchus mykiss            | > 3,7 mg/l, 96 hours  |
| 2,6-bis(1,1-dimethylethyl)-4-(phenylenemethylene)cyclohexa-2,5-dien-1-one (CAS 7078-98-0)                                                                  |         |                                |                       |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Crustacea                                                                                                                                                  | EC50    | Daphnia magna                  | > 100 mg/l, 48 hours  |
|                                                                                                                                                            |         |                                | > 2,73 µg/l, 48 hours |
| Fish                                                                                                                                                       | LC50    | Oncorhynchus mykiss            | > 100 mg/l, 96 hours  |
|                                                                                                                                                            |         |                                | > 100 mg/l, 96 hours  |
|                                                                                                                                                            |         |                                | > 100 mg/l, 96 hours  |
|                                                                                                                                                            |         |                                | > 3,42 µg/l, 96 hours |
|                                                                                                                                                            |         |                                | > 3,42 µg/l, 96 hours |
| 2,6-di-tert-butyl-p-cresol (CAS 128-37-0)                                                                                                                  |         |                                |                       |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Crustacea                                                                                                                                                  | EC50    | Daphnia magna                  | > 0,17 mg/l, 48 hours |
| Fish                                                                                                                                                       | LC50    | Danio rerio                    | > 0,57 mg/l, 96 hours |
| 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate (CAS 15625-89-5) |         |                                |                       |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Fish                                                                                                                                                       | LC50    | Danio rerio                    | 0,87 mg/l, 96 hours   |
| 2-hydroxyethyl acrylate (CAS 818-61-1)                                                                                                                     |         |                                |                       |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Crustacea                                                                                                                                                  | EC50    | Daphnia magna                  | 0,78 mg/l, 48 hours   |
| Fish                                                                                                                                                       | LC50    | Pimephales promelas            | 3,61 mg/l, 96 hours   |
| 2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester (CAS 2399-48-6)                                                                                       |         |                                |                       |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Crustacea                                                                                                                                                  | EC50    | Daphnia magna                  | 37,7 mg/l, 48 hours   |
| Fish                                                                                                                                                       | LC50    | Danio rerio                    | 7,32 mg/l, 96 hours   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (CAS 75980-60-8)                                                                                           |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Other                                                                                                                                                      | EC10    | Pseudokirchnerella subcapitata | 1,56 mg/l, 72 h       |
|                                                                                                                                                            | EC50    | Pseudokirchnerella subcapitata | > 2,01 mg/l, 72 hours |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Crustacea                                                                                                                                                  | EC50    | Daphnia magna                  | 3,53 mg/l, 48 hours   |
| Fish                                                                                                                                                       | LC50    | Cyprinus carpio                | 1,4 mg/l, 96 hours    |
|                                                                                                                                                            |         | Danio rerio                    | 1,4 mg/l, 96 hours    |
| Glycerol, Propoxylated, Esters With Acrylic Acid (CAS 52408-84-1)                                                                                          |         |                                |                       |
| Aquatic                                                                                                                                                    |         |                                |                       |
| Acute                                                                                                                                                      |         |                                |                       |
| Crustacea                                                                                                                                                  | EC50    | Daphnia magna                  | 91,4 mg/l, 48 hours   |
| Fish                                                                                                                                                       | LC50    | Danio rerio                    | 5,74 mg/l, 96 hours   |

| Components                                                                                                                                                                                                                                         | Species                                                                      |                                                                      | Test Results          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------|
| heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10] (CAS 142-82-5) |                                                                              |                                                                      |                       |
| Aquatic                                                                                                                                                                                                                                            |                                                                              |                                                                      |                       |
| Acute                                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Crustacea                                                                                                                                                                                                                                          | EC50                                                                         | Daphnia magna                                                        | 0,4 mg/l, 48 hours    |
| Fish                                                                                                                                                                                                                                               | LC50                                                                         | Oncorhynchus mykiss                                                  | 0,11 mg/l, 96 hours   |
| hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Acute                                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
|                                                                                                                                                                                                                                                    | EC50                                                                         | Selenastrum capricornutum (new name Pseudokirchneriella subcapitata) | 2,3 mg/l, 72 h        |
| Aquatic                                                                                                                                                                                                                                            |                                                                              |                                                                      |                       |
| Acute                                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Crustacea                                                                                                                                                                                                                                          | EC50                                                                         | Daphnia magna                                                        | 2,6 mg/l, 48 hours    |
| Fish                                                                                                                                                                                                                                               | LC50                                                                         | Oryzias latipes                                                      | 0,38 mg/l, 96 h       |
|                                                                                                                                                                                                                                                    |                                                                              |                                                                      | 0,38 mg/l, 96 hours   |
| Chronic                                                                                                                                                                                                                                            |                                                                              |                                                                      |                       |
| Fish                                                                                                                                                                                                                                               | NOEC                                                                         | Oryzias latipes                                                      | 0,0723 mg/l, 39 d     |
| Hydrogen [29H,31H-phthalocyaninesulphonato(3-)-N29,N30,N31,N32]cuprate(1-), Compound With Dodecylamine (1:1) (CAS 73455-75-1)                                                                                                                      |                                                                              |                                                                      |                       |
| Aquatic                                                                                                                                                                                                                                            |                                                                              |                                                                      |                       |
| Acute                                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Crustacea                                                                                                                                                                                                                                          | EC50                                                                         | Daphnia magna                                                        | 0,026 mg/l, 48 hours  |
| Fish                                                                                                                                                                                                                                               | LC50                                                                         | Pimephales promelas                                                  | 0,103 mg/l, 96 hours  |
| Neopentylglycol Propoxylated Diacrylate (CAS 84170-74-1)                                                                                                                                                                                           |                                                                              |                                                                      |                       |
| Aquatic                                                                                                                                                                                                                                            |                                                                              |                                                                      |                       |
| Acute                                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Algae                                                                                                                                                                                                                                              | NOAEL                                                                        | Algae                                                                | 1 mg/l, 72 h          |
| Crustacea                                                                                                                                                                                                                                          | NOAEL                                                                        | Daphnia magna                                                        | 25,3 mg/l, 48 h       |
| N-vinyl Caprolactam (CAS 2235-00-9)                                                                                                                                                                                                                |                                                                              |                                                                      |                       |
| Aquatic                                                                                                                                                                                                                                            |                                                                              |                                                                      |                       |
| Acute                                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Crustacea                                                                                                                                                                                                                                          | EC50                                                                         | Daphnia magna                                                        | > 100 mg/l, 48 hours  |
| Fish                                                                                                                                                                                                                                               | LC50                                                                         | Danio rerio                                                          | 307 mg/l, 96 hours    |
| tetrahydro-2-furyl-methanol; tetrahydrofurfuryl alcohol (CAS 97-99-4)                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Aquatic                                                                                                                                                                                                                                            |                                                                              |                                                                      |                       |
| Acute                                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
| Crustacea                                                                                                                                                                                                                                          | EC50                                                                         | Daphnia magna                                                        | > 91,7 mg/l, 48 hours |
| Fish                                                                                                                                                                                                                                               | LC50                                                                         | Oryzias latipes                                                      | > 101 mg/l, 96 hours  |
| 12.2. Persistence and degradability                                                                                                                                                                                                                | No data is available on the degradability of any ingredients in the mixture. |                                                                      |                       |
| 12.3. Bioaccumulative potential                                                                                                                                                                                                                    |                                                                              |                                                                      |                       |
| Partition coefficient                                                                                                                                                                                                                              |                                                                              |                                                                      |                       |
| n-octanol/water (log Kow)                                                                                                                                                                                                                          |                                                                              |                                                                      |                       |
| 2,6-di-tert-butyl-p-cresol                                                                                                                                                                                                                         |                                                                              |                                                                      | 5,1                   |
| 2-hydroxyethyl acrylate                                                                                                                                                                                                                            |                                                                              |                                                                      | -0,21                 |
| heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10]                |                                                                              |                                                                      | 4,66                  |
| hexamethylene diacrylate; hexane-1,6-diol diacrylate                                                                                                                                                                                               |                                                                              |                                                                      | 3,08                  |
| Bioconcentration factor (BCF)                                                                                                                                                                                                                      | Not available.                                                               |                                                                      |                       |
| 12.4. Mobility in soil                                                                                                                                                                                                                             | No data available.                                                           |                                                                      |                       |

|                                                 |                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>12.5. Results of PBT and vPvB assessment</b> | Not available.                                                                                                                                                                                                                                                                                             |
| <b>12.6. Endocrine disrupting properties</b>    | This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight. |
| <b>12.7. Other adverse effects</b>              | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.                                                                                                                    |

#### 12.8. Additional information

##### Estonia Dangerous substances in soil Data

Hydrogen [29H,31H-phthalocyaninesulphonato(3-)-N29, N30,N31,N32]cuprate(1-), Compound With Dodecylamine (1:1) (CAS 73455-75-1)

Copper (Cu) 100 mg/kg

Copper (Cu) 150 mg/kg

Copper (Cu) 500 mg/kg

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                                     |                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Residual waste</b>               | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.                                                                                                                                                      |
| <b>Contaminated packaging</b>       | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.                                                                                                                               |
| <b>EU waste code</b>                | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.                                                                                                                                                                                                                           |
| <b>Disposal methods/information</b> | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| <b>Special precautions</b>          | Dispose in accordance with all applicable regulations.                                                                                                                                                                                                                                                                                   |

## SECTION 14: Transport information

### ADR

|                                           |                                                                                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>14.1. UN number</b>                    | UN3082                                                                                                     |
| <b>14.2. UN proper shipping name</b>      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester) |
| <b>14.3. Transport hazard class(es)</b>   |                                                                                                            |
| <b>Class</b>                              | 9                                                                                                          |
| <b>Subsidiary hazard</b>                  | -                                                                                                          |
| <b>Label(s)</b>                           | 9                                                                                                          |
| <b>Hazard No. (ADR)</b>                   | 90                                                                                                         |
| <b>Tunnel restriction code</b>            | -                                                                                                          |
| <b>14.4. Packing group</b>                | III                                                                                                        |
| <b>14.5. Environmental hazards</b>        | No.                                                                                                        |
| <b>14.6. Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling.                                    |

### RID

|                                           |                                                                                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>14.1. UN number</b>                    | UN3082                                                                                                     |
| <b>14.2. UN proper shipping name</b>      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester) |
| <b>14.3. Transport hazard class(es)</b>   |                                                                                                            |
| <b>Class</b>                              | 9                                                                                                          |
| <b>Subsidiary hazard</b>                  | -                                                                                                          |
| <b>Label(s)</b>                           | 9                                                                                                          |
| <b>14.4. Packing group</b>                | III                                                                                                        |
| <b>14.5. Environmental hazards</b>        | No.                                                                                                        |
| <b>14.6. Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling.                                    |

### ADN

|                                      |                                                                                                            |
|--------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>14.1. UN number</b>               | UN3082                                                                                                     |
| <b>14.2. UN proper shipping name</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester) |

**14.3. Transport hazard class(es)**

Class 9  
Subsidiary hazard -  
Label(s) 9

**14.4. Packing group** III

**14.5. Environmental hazards** No.

**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IATA**

**14.1. UN number** UN3082

**14.2. UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s. (2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester)

**14.3. Transport hazard class(es)**

Class 9  
Subsidiary hazard -

**14.4. Packing group** III

**14.5. Environmental hazards** No.

**ERG Code** 9L

**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Other information**

**Passenger and cargo aircraft** Allowed with restrictions.

**Cargo aircraft only** Allowed with restrictions.

**IMDG**

**14.1. UN number** UN3082

**14.2. UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-propenoic Acid, (tetrahydro-2-furanyl)methyl Ester), MARINE POLLUTANT

**14.3. Transport hazard class(es)**

Class 9  
Subsidiary hazard -

**14.4. Packing group** III

**14.5. Environmental hazards**

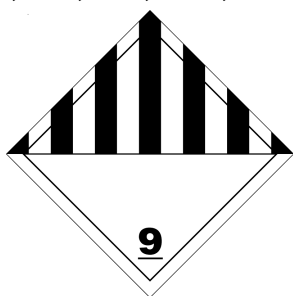
**Marine pollutant** Yes

**EmS** F-A, S-F

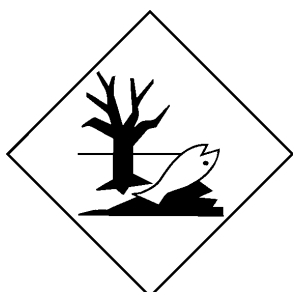
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**14.7. Maritime transport in bulk according to IMO instruments** Not established.

**ADN; ADR; IATA; IMDG; RID**



**Marine pollutant**



**General information**

IMDG Regulated Marine Pollutant.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Hydrogen [29H,31H-phthalocyaninesulphonato(3-)-N29,N30,N31,N32]cuprate(1-), Compound With Dodecylamine (1:1)  
(CAS 73455-75-1)

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (CAS 75980-60-8)

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended - Conditions of restriction given for the associated entry number should be considered**

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75  
(CAS 75980-60-8)

tetrahydro-2-furyl-methanol; tetrahydrofurfuryl alcohol (CAS 97-99-4)

**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex I, as amended**

Not listed.

**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex II, as amended**

Not listed.

#### Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

ANNEX 1, PART 1 Categories of dangerous substances  
Hazard categories in accordance with Regulation (EC) No 1272/2008  
- E2 Hazardous to the Aquatic Environment Chronic

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (CAS 75980-60-8)  
tetrahydro-2-furyl-methanol; tetrahydrofurfuryl alcohol (CAS 97-99-4)

#### Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

#### National regulations

According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended Use of this product by young persons under the age of 18 is not allowed in accordance with the Management of Health and Safety at Work Regulations 1999 [SI 1999/3242], as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

#### France regulations

##### France INRS Table of Occupational Diseases

|                                                                                                                                                         |                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 2-ethyl-2-[(1-oxoallyl)oxy]methyl-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate (CAS 15625-89-5) | Lésions eczématiformes de mécanisme allergique 65 |
| Ethylene Glycol Diacrylate (CAS 2274-11-5)                                                                                                              | Lésions eczématiformes de mécanisme allergique 65 |

heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10] (CAS 142-82-5)  
 hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)  
 Neopentylglycol Propoxylated Diacrylate (CAS 84170-74-1)

Affections engendrées par les solvants organiques liquides à usage professionnel : hydrocarbures liquides aliphatiques ou cycliques saturés ou insaturés et leurs mélanges; hydrocarbures halogénés liquides; dérivés nitrés des hydrocarbures aliphatiques; al 84  
 Lésions eczématiformes de mécanisme allergique 65  
 Lésions eczématiformes de mécanisme allergique 65

## 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

### List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.  
 ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.  
 AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).  
 CAS: Chemical Abstract Service.  
 CEN: European Committee for Standardization.  
 IATA: International Air Transport Association.  
 IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.  
 IMDG: International Maritime Dangerous Goods.  
 MAC: Maximum Allowed Concentration.  
 MARPOL: International Convention for the Prevention of Pollution from Ships.  
 PBT: Persistent, bioaccumulative and toxic.  
 RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.  
 STEL: Short term exposure limit.  
 TLV: Threshold Limit Value.  
 TWA: Time Weighted Average.  
 VLE: Exposure Limit Value.  
 VME: Exposure Average Value.  
 vPvB: Very persistent and very bioaccumulative.

### References

Not available.

### Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

### Full text of any statements, which are not written out in full under sections 2 to 15

H225 Highly flammable liquid and vapour.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H311 Toxic in contact with skin.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H351 Suspected of causing cancer.  
 H360 May damage fertility or the unborn child.  
 H360Df May damage the unborn child. Suspected of damaging fertility.  
 H360Fd May damage fertility. Suspected of damaging the unborn child.  
 H361f Suspected of damaging fertility.  
 H372 Causes damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.  
 H413 May cause long lasting harmful effects to aquatic life.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.

**Training information**

Follow training instructions when handling this material.

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