

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ORALITE® 5018 Screen Printing Ink (060)

Revision date: 11.01.2021

Product code: SDF5018-060N

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

1.1. Product identifier

ORALITE® 5018 Screen Printing Ink (060)

Further trade names

ORALITE® Siebdruckfarbe 5018-060

Colour: green (060)

UFI: UC32-0MMD-RN40-083F

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

Use of the substance/mixture

Colour (Screen Printing Ink)

Uses advised against

Do not use for private purposes (household). Reserved for industrial and professional use.

1.3. Details of the supplier of the safety data sheet

| | | |
|---------------|---------------------|----------------------------|
| Company name: | ORAFOL Europe GmbH | |
| | Germany | |
| Street: | Orafolstraße 1 | |
| Place: | D-16515 Oranienburg | |
| Telephone: | + 49 3301 864 0 | Telefax: + 49 3301 864 100 |
| e-mail: | msds@orafol.de | |
| Internet: | www.orafol.com | |

1.4. Emergency telephone number:

National Poison Information Service: In case of a medical emergency following exposure to a chemical, the public should call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 3

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Flammable liquid and vapour.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

H226 Flammable liquid and vapour.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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| | |
|----------------|--------------------------------------------------------------------------------------------------------|
| P243 | Take action to prevent static discharges. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P501 | Dispose of contents/container to an appropriate recycling or disposal facility. |

Special labelling of certain mixtures

EUH208 Contains Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | Quantity |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| | EC No | |
| | Index No | |
| | REACH No | |
| | GHS Classification | |
| 1330-20-7 | xylene | 5 - < 10 % |
| | 215-535-7 | |
| | 601-022-00-9 | |
| | 01-2119488216-32 | |
| | Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H226 H332 H312 H315 H319 H335 H373 H304 H412 | |
| 112-07-2 | 2-butoxyethyl acetate, butylglycol acetate | 5 - < 10 % |
| | 203-933-3 | |
| | 607-038-00-2 | |
| | 01-2119475112-47 | |
| | Acute Tox. 4, Acute Tox. 4, Acute Tox. 4; H332 H312 H302 | |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | 5 - < 10 % |
| | 203-603-9 | |
| | 607-195-00-7 | |
| | 01-2119475791-29 | |
| | Flam. Liq. 3, STOT SE 3; H226 H336 | |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | < 1 % |
| | 915-687-0 | |
| | 01-2119491304-40 | |
| | Skin Sens. 1, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1; H317 H400 H410 | |

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. If eye irritation persists: Get medical

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advice/attention.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air. Hazardous combustion products: Carbon dioxide (CO₂), Carbon monoxide (CO), Sulphur oxides, Silicon dioxide (SiO₂).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. The danger areas must be delimited and identified using relevant warning and safety signs. Heating causes rise in pressure with risk of bursting. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration. Beware of reignition.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Use personal protection equipment. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

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Further information on handling

Thermal hazards: Hazardous decomposition products: Methyl methacrylate, dodecyl methacrylate, Phenol, Sulphur dioxide (SO₂).

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

Further information on storage conditions

Unsuitable container/equipment material: Copper, Aluminium, Zinc.

7.3. Specific end use(s)

Colour (Screen Printing Ink)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|-------------------------|-----|-------------------|-----------|---------------|--------|
| 108-65-6 | 1-Methoxypropyl acetate | 50 | 274 | | TWA (8 h) | WEL |
| | | 100 | 548 | | STEL (15 min) | WEL |
| 112-07-2 | 2-Butoxyethyl acetate | 20 | 133 | | TWA (8 h) | WEL |
| | | 50 | 332 | | STEL (15 min) | WEL |
| 110-82-7 | Cyclohexane | 100 | 350 | | TWA (8 h) | WEL |
| | | 300 | 1050 | | STEL (15 min) | WEL |
| 80-62-6 | Methyl methacrylate | 50 | 208 | | TWA (8 h) | WEL |
| | | 100 | 416 | | STEL (15 min) | WEL |
| 1330-20-7 | Xylene: mixed isomers | 50 | 220 | | TWA (8 h) | WEL |
| | | 100 | 441 | | STEL (15 min) | WEL |

Biological Monitoring Guidance Values (EH40)

| CAS No | Substance | Parameter | Value | Test material | Sampling time |
|-----------|-------------------------------------|-----------------------------------|--------------|---------------|---------------|
| 1330-20-7 | Xylene, o-, m-, p- or mixed isomers | methyl hippuric acid (creatinine) | 650 mmol/mol | urine | Post shift |

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DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|-------------------------------------------------------------------------------------------------------------------|----------------|----------|------------------------|
| 1330-20-7 | xylene | | | |
| Worker DNEL, long-term | | inhalation | systemic | 221 mg/m ³ |
| Worker DNEL, acute | | inhalation | systemic | 442 mg/m ³ |
| Worker DNEL, long-term | | inhalation | local | 221 mg/m ³ |
| Worker DNEL, acute | | inhalation | local | 442 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 212 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 65,3 mg/m ³ |
| Consumer DNEL, acute | | inhalation | systemic | 260 mg/m ³ |
| Consumer DNEL, long-term | | inhalation | local | 65,3 mg/m ³ |
| Consumer DNEL, acute | | inhalation | local | 260 mg/m ³ |
| Consumer DNEL, long-term | | dermal | systemic | 125 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 12,5 mg/kg bw/day |
| 112-07-2 | 2-butoxyethyl acetate, butylglycol acetate | | | |
| Worker DNEL, acute | | inhalation | local | 333 mg/m ³ |
| Worker DNEL, acute | | dermal | systemic | 120 mg/kg bw/day |
| Worker DNEL, acute | | inhalation | systemic | 775 mg/m ³ |
| Consumer DNEL, acute | | dermal | systemic | 72 mg/kg bw/day |
| Consumer DNEL, acute | | inhalation | systemic | 499 mg/m ³ |
| Consumer DNEL, acute | | oral | systemic | 36 mg/kg bw/day |
| Consumer DNEL, acute | | inhalation | local | 200 mg/m ³ |
| Consumer DNEL, long-term | | dermal | systemic | 102 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 80 mg/m ³ |
| Consumer DNEL, long-term | | oral | systemic | 8,6 mg/kg bw/day |
| Worker DNEL, long-term | | dermal | systemic | 169 mg/kg bw/day |
| Worker DNEL, long-term | | inhalation | systemic | 133 mg/m ³ |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | | | |
| Worker DNEL, long-term | | inhalation | systemic | 275 mg/m ³ |
| Worker DNEL, acute | | inhalation | local | 550 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 796 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 33 mg/m ³ |
| Consumer DNEL, long-term | | inhalation | local | 33 mg/m ³ |
| Consumer DNEL, long-term | | dermal | systemic | 320 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 36 mg/kg bw/day |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | | | |
| Worker DNEL, acute | | dermal | systemic | 2,5 mg/kg bw/day |
| Worker DNEL, acute | | inhalation | systemic | 2,35 mg/m ³ |
| Worker DNEL, long-term | | inhalation | systemic | 0,68 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 0,5 mg/kg bw/day |

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| | | | |
|--------------------------|------------|----------|------------------------|
| Consumer DNEL, acute | dermal | systemic | 1,25 mg/kg bw/day |
| Consumer DNEL, acute | inhalation | systemic | 0,58 mg/m ³ |
| Consumer DNEL, acute | oral | systemic | 1,25 mg/kg bw/day |
| Consumer DNEL, long-term | dermal | systemic | 0,25 mg/kg bw/day |
| Consumer DNEL, long-term | inhalation | systemic | 0,17 mg/m ³ |
| Consumer DNEL, long-term | oral | systemic | 0,05 mg/kg bw/day |

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PNEC values

| CAS No | Substance | Value |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------|
| Environmental compartment | | |
| 1330-20-7 | xylene | |
| Freshwater | | 0,327 mg/l |
| Freshwater (intermittent releases) | | 0,327 mg/l |
| Marine water | | 0,327 mg/l |
| Freshwater sediment | | 12,46 mg/kg |
| Marine sediment | | 12,46 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 6,58 mg/l |
| Soil | | 2,31 mg/kg |
| 112-07-2 | 2-butoxyethyl acetate, butylglycol acetate | |
| Freshwater | | 0,304 mg/l |
| Freshwater (intermittent releases) | | 0,56 mg/l |
| Marine water | | 0,03 mg/l |
| Freshwater sediment | | 2,03 mg/kg |
| Marine sediment | | 0,203 mg/kg |
| Secondary poisoning | | 60 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 90 mg/l |
| Soil | | 0,415 mg/kg |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | |
| Freshwater | | 0,635 mg/l |
| Freshwater (intermittent releases) | | 6,35 mg/l |
| Marine water | | 0,064 mg/l |
| Freshwater sediment | | 3,29 mg/kg |
| Marine sediment | | 0,329 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 100 mg/l |
| Soil | | 0,29 mg/kg |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | |
| Freshwater | | 0,002 mg/l |
| Freshwater (intermittent releases) | | 0,009 mg/l |
| Marine water | | 0 mg/l |
| Freshwater sediment | | 1,05 mg/kg |
| Marine sediment | | 0,11 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 1 mg/l |
| Soil | | 0,21 mg/kg |

Additional advice on limit values

TRGS 900, 2-butoxyethyl acetate; butylglycol acetate & 2-methoxypropyl acetate & 2-methoxypropyl acetate::
Aerosol, vapour May be absorbed through the skin.

2-methoxypropyl acetate: Z: A risk of reproductive effects cannot to be excluded if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept

8.2. Exposure controls

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Appropriate engineering controls

Use explosion-proof ventilating equipment.

Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

Eye/face protection

Wear eye protection/face protection.

Hand protection

Suitable gloves type: Butyl caoutchouc (butyl rubber). Use gloves only once.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Collect spillage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | | |
|-----------------------------------------------|--------|----------------|
| Physical state: | Liquid | |
| Colour: | green | |
| pH-Value: | | not determined |
| Changes in the physical state | | |
| Melting point: | | not determined |
| Initial boiling point and boiling range: | | ca. 139,1 °C |
| Flash point: | | 27 °C |
| Flammability | | |
| Solid: | | not applicable |
| Gas: | | not applicable |
| Explosive properties | | |
| Vapours can form explosive mixtures with air. | | |
| Lower explosion limits: | | 1,21 vol. % |
| Upper explosion limits: | | 7 vol. % |
| Ignition temperature: | | >210 °C |
| Auto-ignition temperature | | |
| Solid: | | not applicable |
| Gas: | | not applicable |
| Decomposition temperature: | | not determined |

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Oxidizing properties

Not oxidising.

Vapour pressure: 5,02 hPa
(at 20 °C)Density: 1,03 g/cm³Water solubility: The study does not need to be conducted
because the substance is known to be
insoluble in water.**Solubility in other solvents**

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

Solvent content: 62 - 67%

9.2. Other information

Solid content: 33 - 38%

SECTION 10: Stability and reactivity**10.1. Reactivity**

Flammable. In use, may form flammable/explosive vapour-air mixture.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

Unsuitable container/equipment material: Copper, Aluminium, Zinc.

Avoid: Strong acid, Oxidising agent.

10.6. Hazardous decomposition productsThermal hazards: Hazardous decomposition products: Methyl methacrylate, dodecyl methacrylate, Phenol, Sulphur dioxide (SO₂).Hazardous combustion products: Carbon dioxide (CO₂), Carbon monoxide (CO), Sulphur oxides, Silicon dioxide (SiO₂).**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

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Acute toxicity

| CAS No | Chemical name | | | | |
|--------------|-------------------------------------------------------------------------------------------------------------------|---------------------|---------|----------------------------------------|------------------------------------------|
| | Exposure route | Dose | Species | Source | Method |
| 1330-20-7 | xylene | | | | |
| | oral | LD50 > 4000 mg/kg | Rat | Study report (1986) | EU Method B.1 |
| | dermal | LD50 12126 mg/kg | Rabbit | Publication (1962) | Single dermal dose under occlusion follo |
| | inhalation (4 h) vapour | LC50 6247 mg/l | Rat | Study report (1986) | EPA OPP 81-3 |
| | inhalation aerosol | ATE 1,5 mg/l | | | |
| 112-07-2 | 2-butoxyethyl acetate, butylglycol acetate | | | | |
| | oral | LD50 ca. 1880 mg/kg | Rat | Study report (1963) | OECD Guideline 401 |
| | dermal | LD50 ca. 1500 mg/kg | Rabbit | Toxicol Appl Pharmac 51, 117-27 (1979) | Modification of the Draize 1959 method u |
| | inhalation vapour | ATE 11 mg/l | | | |
| | inhalation (4 h) aerosol | LC50 2,66 mg/l | Rat | | |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | | | | |
| | oral | LD50 6190 mg/kg | Rat | Study report (1985) | OECD Guideline 401 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (1985) | OECD Guideline 402 |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | | | | |
| | oral | LD50 3230 mg/kg | Rat | Study report (1981) | OECD Guideline 423 |
| | dermal | LD50 > 3170 mg/kg | Rat | Study report (1975) | OECD Guideline 402 |

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

The product has not been tested. The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

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| CAS No | Chemical name | | | | | |
|--------------|-------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|---------------------------------|------------------------------------------|-----------------------------------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 1330-20-7 | xylene | | | | | |
| | Acute fish toxicity | LC50 8,4 mg/l | 96 h | Oncorhynchus mykiss | Ecotoxicology and Environmental Safety. | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 4,9 mg/l | 72 h | Pseudokirchneriella subcapitata | Ecotoxicology and Environmental Safety. | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l > 3,4 | 48 h | Ceriodaphnia dubia | Ecotoxicology and Environmental Safety 3 | other: US EPA 600/4-91-003 |
| | Fish toxicity | NOEC mg/l > 1,3 | 56 d | Oncorhynchus mykiss | Appl. Sci. Branch, Eng. Res. Cent. Denve | Fish were exposed in artificial streams |
| | Crustacea toxicity | NOEC mg/l 1,17 | 7 d | Ceriodaphnia dubia | Ecotoxicology and Environmental Safety 3 | other: US EPA 600/4-91-003 |
| | Acute bacteria toxicity | (> 175 mg/l) | 0,5 h | Activated sludge | Research Journal WPCF 60(10) 1850-1856 (| OECD Guideline 209 |
| 112-07-2 | 2-butoxyethyl acetate, butylglycol acetate | | | | | |
| | Acute fish toxicity | LC50 > 20 - < 40 mg/l | 96 h | Oncorhynchus mykiss | Toxicol Mech & meth 12, 255-63 (2002) | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l 1570 | 72 h | Pseudokirchneriella subcapitata | Toxicol Mech & meth 12, 255-63 (2002) | ISO 8692 |
| | Acute crustacea toxicity | EC50 mg/l 67,5 | 48 h | Daphnia magna | Toxicol Mech & meth 12, 255-63 (2002) | ISO 6341 |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | | | | | |
| | Acute fish toxicity | LC50 mg/l > 100 | 96 h | Oryzias latipes | Study report (1998) | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l > 1000 | 72 h | Pseudokirchneriella subcapitata | Study report (1998) | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l 408 | 48 h | Daphnia magna | Study report (1980) | OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l 47,5 | 14 d | Oryzias latipes | Study report (1998) | OECD Guideline 204 |
| | Crustacea toxicity | NOEC mg/l >= 100 | 21 d | Daphnia magna | Study report (1998) | OECD Guideline 211 |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | | | | | |
| | Acute fish toxicity | LC50 mg/l 0,9 | 96 h | Danio rerio | Study report (2010) | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l 1,68 | 72 h | Desmodesmus subspicatus | Study report (2010) | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l 20 | 48 h | Daphnia magna | | |
| | Crustacea toxicity | NOEC mg/l 1 | 21 d | Daphnia magna | Study report (2010) | OECD Guideline 211 |
| | Acute bacteria toxicity | (> 100 mg/l) | 3 h | | | |

12.2. Persistence and degradability

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The product has not been tested.

| CAS No | Chemical name | Method | Value | d | Source |
|--------------|-------------------------------------------------------------------------------------------------------------------|------------|-------|---|--------|
| | | Evaluation | | | |
| 112-07-2 | 2-butoxyethyl acetate, butylglycol acetate | | | | |
| | OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F | 88 % | 28 | | |
| | Readily biodegradable (according to OECD criteria). | | | | |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | | | | |
| | OECD 301F; ISO 9408; 92/69/EWG, C.4-D | 38% | 28 | | |
| | Not readily biodegradable (according to OECD criteria) Moderately/partially biodegradable. 38 % DOC reduction. | | | | |

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|--------------|-------------------------------------------------------------------------------------------------------------------|---------|
| 1330-20-7 | xylene | 3,2 |
| 112-07-2 | 2-butoxyethyl acetate, butylglycol acetate | 1,51 |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | 1,2 |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | 2,37 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|--------------|-------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------------|
| 1330-20-7 | xylene | > 5,5 - < 12,2 | Oncorhynchus mykiss | Appl. Sci. Branch, E |
| 1065336-91-5 | Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | < 9,7 | Cyprinus carpio | Study report (1981) |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Contains: Copper.

The product contains organically bound halogen as per formulation. It may increase the AOX value when discharged from treatment plants or into natural waters. AOX: Chlorine

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

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Dispose of this material and its container to hazardous or special waste collection point. Consult the appropriate local waste disposal expert about waste disposal.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1263
14.2. UN proper shipping name: PAINT
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Special Provisions: 163 367 650
 Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 30
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1263
14.2. UN proper shipping name: Paint
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Special Provisions: 163 367 650
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1263
14.2. UN proper shipping name: PAINT
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: 163, 223, 367, 955
 Limited quantity: 5 L

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Excepted quantity: E1
 EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1263
14.2. UN proper shipping name: PAINT
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: A3 A72 A192
 Limited quantity Passenger: 10 L
 Passenger LQ: Y344
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: flammable liquids

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

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3: xylene; 2-methoxy-1-methylethyl acetate

Entry 57: cyclohexane

2010/75/EU (VOC): 62,64 % (645,192 g/l)
 2004/42/EC (VOC): 62,64 % (645,192 g/l)
 Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

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REACH: Registration, Evaluation and Authorization of Chemicals
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
 UN: United Nations
 CAS: Chemical Abstracts Service
 DNEL: Derived No Effect Level
 DMEL: Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 ATE: Acute toxicity estimate
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 VOC: Volatile Organic Compounds
 SVHC: Substance of Very High Concern
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Flam. Liq. 3; H226 | On basis of test data |
| Aquatic Chronic 3; H412 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH208 | Contains Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction. |

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)