

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ORALITE® 5018 Screen Printing Ink (080)

Revision date: 19.05.2021

Product code: SDF5018-080N

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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 (080)

Further trade names

ORALITE® Siebdruckfarbe 5018-080

Colour: brown (080)

UFI: QHN2-7MNS-YN4Y-9HNC

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

Colour (Screen Printing Ink) Reserved for industrial and professional use.

Uses advised against

Do not use for private purposes (household).

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

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

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.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

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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.
- P243 Take action to prevent static discharges.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- 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 Naphthenic acids, nickel salts, 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**

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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			
25086-48-0	Vinyl Chloride vinyl acetate vinyl alcohol resin			1 - < 5 %
	607-539-6			
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335			
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, Aquatic Chronic 1; H317 H400 H410			
61788-71-4	Naphthenic acids, nickel salts			< 1 %
	263-000-1		01-2120796206-47	
	Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H317 H400 H410			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
1330-20-7	215-535-7	xylene	5 - < 10 %
		inhalation: LC50 = 5922 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 12126 mg/kg; oral: LD50 = 3523 mg/kg	
112-07-2	203-933-3	2-butoxyethyl acetate, butylglycol acetate	5 - < 10 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = 2,66 mg/l (dusts or mists); dermal: LD50 = ca. 1500 mg/kg; oral: LD50 = ca. 1880 mg/kg	
108-65-6	203-603-9	2-methoxy-1-methylethyl acetate	5 - < 10 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = 6190 - 10000 mg/kg	
1065336-91-5	915-687-0	Reaction mass of 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	< 1 %
		dermal: LD50 = > 3170 mg/kg; oral: LD50 = 3230 mg/kg M akut; H400: M=1	
61788-71-4	263-000-1	Naphthenic acids, nickel salts	< 1 %
		dermal: LD50 = > 20000 mg/kg; oral: LD50 = 361,9 mg/kg	

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.

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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

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. If eye irritation persists: Get medical 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

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. 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. Suppress gases/vapours/mists with water spray jet. 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****General measures**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. 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**Other information**

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

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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.

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 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. Keep/Store only in original container.

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
7727-43-7	Barium sulphate, inhalable dust	-	10		TWA (8 h)	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

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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
61788-71-4	Naphthenic acids, nickel salts		
Worker DNEL, long-term	inhalation	systemic	0,46 mg/m ³
Worker DNEL, acute	inhalation	systemic	963 mg/m ³
Worker DNEL, long-term	inhalation	local	0,46 mg/m ³
Worker DNEL, acute	inhalation	local	14,8 mg/m ³
Consumer DNEL, acute	inhalation	systemic	81,5 mg/m ³
Consumer DNEL, acute	inhalation	local	0,93 mg/m ³
Consumer DNEL, long-term	oral	systemic	0,19 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	0,11 mg/kg bw/day
7727-43-7	Barium Sulfate		
Worker DNEL, long-term	inhalation	systemic	10 mg/m ³
Worker DNEL, long-term	inhalation	local	10 mg/m ³
Consumer DNEL, long-term	inhalation	systemic	10 mg/m ³
Consumer DNEL, long-term	oral	systemic	13000 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
61788-71-4	Naphtenic acids, nickel salts	
Freshwater		0,00615 mg/l
Freshwater (intermittent releases)		0 mg/l
Marine water		0,000615 mg/l
Freshwater sediment		30,73 mg/kg
Marine sediment		3,07 mg/kg
Secondary poisoning		1,11 mg/kg

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Micro-organisms in sewage treatment plants (STP)	0,142 mg/l
Soil	6,138 mg/kg
7727-43-7	Barium Sulfate
Freshwater	0,115 mg/l
Freshwater sediment	600,4 mg/kg
Micro-organisms in sewage treatment plants (STP)	62,2 mg/l
Soil	207,7 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

Appropriate engineering controls

Use explosion-proof ventilating equipment.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

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

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:	brown
pH-Value:	not determined

Changes in the physical state

Melting point:	not determined
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Boiling point or initial boiling point and boiling range: ca. 139,1 °C

Flash point: 27 °C

Flammability

Solid/liquid: not applicable

Gas: not applicable

Explosive properties

The product is not: Explosive. Vapours can form explosive mixtures with air.

Lower explosion limits: 1,21 vol. %

Upper explosion limits: 7 vol. %

Auto-ignition temperature: >210 °C

Self-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: 5,02 hPa
(at 20 °C)Density: 1,02 g/cm³

Water 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 n-octanol/water: not determined

Relative 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.

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10.6. Hazardous decomposition products

Thermal 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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1330-20-7	xylene				
	oral	LD50 3523 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 5922 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 - 10000 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
61788-71-4	Naphthenic acids, nickel salts				
	oral	LD50 361,9 mg/kg	Rat	Regul Toxicol and Pharmacol (doi.org/10.	OECD Guideline 425
	dermal	LD50 > 20000 mg/kg	Rabbit	Study report (1979)	other: CFR 16 1500.40

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

Contains Naphthenic acids, nickel salts, 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.

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Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

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 4,6 mg/l	72 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 1	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 100 - 180 mg/l	96 h	Oncorhynchus mykiss	Study report (1987)	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l > 1000	96 h	Pseudokirchneriella subcapitata	Study report (1986)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l > 500	48 h	Daphnia magna	Study report (1987)	EU Method C.2
	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 0,9 mg/l	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 20 mg/l	48 h	Daphnia magna		
	Crustacea toxicity	NOEC 1 mg/l	21 d	Daphnia magna	Study report (2010)	OECD Guideline 211
	Acute bacteria toxicity	(> 100 mg/l)	3 h			
61788-71-4	Naphthenic acids, nickel salts					

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	Acute fish toxicity	LC50 mg/l	15,3	96 h	Oncorhynchus mykiss	Aquatic Toxicology 63 (2003) 65-82 (2003)	other: not reported
	Acute algae toxicity	ErC50 mg/l	ca. 29,6	72 h	Pseudokirchneriella subcapitata	Robust study summary (2010)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,2663	48 h	Ceriodaphnia dubia	Study report (2004)	other: American society of testing and m
	Fish toxicity	NOEC mg/l	0,057	32 d	Pimephales promelas	Water Resources Research Institute. Kent	other: ASTM 1980, E-729
	Algae toxicity	NOEC mg/l	< 0,1	14 d	Navicula pelliculosa	Environ. Pollut. 20(3):131-137. (1979)	other: not reported
	Crustacea toxicity	NOEC mg/l	0,124	21 d	other aquatic mollusc: Juga plicifera	Environ. Toxicol. Chem. 5(9):807-811 (19	Method: other: not reported
	Acute bacteria toxicity	(33 mg/l)		0,5 h	Activated sludge	Journal of Hazardous Materials. B139:332	ISO 8192

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
112-07-2	2-butoxyethyl acetate, butylglycol acetate	OECD 301F	88%	28	
	Readily biodegradable (according to OECD criteria).				
108-65-6	2-methoxy-1-methylethyl acetate	OECD 301F	83%	28	
	Readily biodegradable (according to OECD criteria).				
		OECD 302B	100%	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
61788-71-4	Naphthenic acids, nickel salts	> 2,05 - < 13,25

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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)
61788-71-4	Naphthenic acids, nickel salts	39	Chlorella salina	J. Mar. Biol. Ass. U

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.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. 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

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.

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

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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
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
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14.6. Special precautions for user

Warning: flammable liquids

14.7. Maritime transport in bulk according to IMO instruments

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, Entry 57

2010/75/EU (VOC): 65,908 % (672,259 g/l)

2004/42/EC (VOC): 65,908 % (672,259 g/l)

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles 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**Changes**

This data sheet contains changes from the previous version in section(s): 1,11,14.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

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>

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ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Regulations concerning the international carriage of dangerous goods by rail
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
 intérieures)
 IMDG: International Maritime Code for Dangerous Goods
 EmS: Emergency Schedules
 MFAG: Medical First Aid Guide
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization

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
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
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 Naphthenic acids, nickel salts, 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.)