

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ceramic-Polymer NK C5-1 Part A

Revision date: 03.04.2020

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

##### 1.1. Product identifier

Ceramic-Polymer NK C5-1 Part A

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

###### Use of the substance/mixture

Colour

###### Uses advised against

No data available

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

Company name:	Chesterton International GmbH	
Street:	Am Lenzenfleck 23	
Place:	DE-85737 Ismaning GERMANY	
Telephone:	+49 89 99 65 46 - 0	Telefax: +49 89 99 65 46 - 50
e-mail:	eu-sds@chesterton.com	
e-mail (Contact person):	eu-sds@chesterton.com	
Internet:	www.chesterton.com	
Responsible Department:	eu-sds@chesterton.com	

##### 1.4. Emergency telephone number:

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

#### 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

Respiratory or skin sensitisation: Skin Sens. 1A

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

##### 2.2. Label elements

###### Regulation (EC) No. 1272/2008

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#### Hazard components for labelling

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-

((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis(oxirane)

Phenol, methylstyrenated

N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)

Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine

**Signal word:** Warning

#### Pictograms:



#### Hazard statements

- |      |                                                       |
|------|-------------------------------------------------------|
| H226 | Flammable liquid and vapour.                          |
| H315 | Causes skin irritation.                               |
| H317 | May cause an allergic skin reaction.                  |
| H319 | Causes serious eye irritation.                        |
| H410 | Very toxic 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.         |
| P241           | Use explosion-proof electrical/ventilating/lighting equipment.                                         |
| P261           | Avoid breathing dust/fume/gas/mist/vapours/spray.                                                      |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P501           | Dispose of contents/container to an appropriate recycling or disposal facility.                        |

#### 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	
7440-66-6	zinc powder - zinc dust (stabilized)	50 - < 75 %
	231-175-3	
	030-001-01-9	
	01-2119467174-37	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
25036-25-3	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis(oxirane)	5 - < 7 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317	
1330-20-7	xylene	5 - < 7 %
	215-535-7	
	601-022-00-9	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H332 H312 H315	
108-65-6	2-methoxy-1-methylethyl acetate	5 - < 7 %
	203-603-9	
	607-195-00-7	
	01-2119475791-29	
	Flam. Liq. 3; H226	
1314-13-2	zinc oxide	1 - < 2,5 %
	215-222-5	
	030-013-00-7	
	01-2119463881-32	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
71-36-3	n-Butanol; Butan-1-ol	1 - < 2,5 %
	200-751-6	
	603-004-00-6	
	01-2119484630-38	
	Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, STOT SE 3; H226 H302 H315 H318 H335 H336	
68512-30-1	Phenol, methylstyrenated	1 - < 2,5 %
	270-966-8	
	01-2119555274-38	
	Skin Sens. 1, Aquatic Chronic 3; H317 H412	
123-26-2	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	0,15 - 0,25 %
	204-613-6	
	01-2119978265-26	
	Skin Sens. 1B, Aquatic Chronic 3; H317 H412	
	Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine	0,1 - 0,15 %
	942-330-6	
	01-2120101675-63	
	Acute Tox. 4, Skin Irrit. 2, Skin Sens. 1A, STOT RE 2; H302 H315 H317 H373	

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

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

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#### General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

Remove casualty to fresh air and keep warm and at rest.  
If unconscious place in recovery position and seek medical advice.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Seek medical advice immediately.  
Do not wash with: Solvents/Thinner

#### 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.

#### After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.  
Do NOT induce vomiting.

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

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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

First Aid, decontamination, treatment of symptoms.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### Suitable extinguishing media

Dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>). alcohol resistant foam. Water spray jet

##### Unsuitable extinguishing media

Full water jet

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

Carbon monoxide Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>)

#### **5.3. Advice for firefighters**

Special protective equipment for firefighters Protective clothing. In case of fire: Wear self-contained breathing apparatus.

#### Additional information

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**

See protective measures under point 7 and 8.

Provide adequate ventilation.

Personal protection equipment: see section 8

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#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Cover drains.

#### **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**

See protective measures under point 7 and 8.

Disposal: see section 13

### SECTION 7: Handling and storage

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

##### **Advice on safe handling**

See section 8. Wear personal protection equipment (refer to section 8). Keep container tightly closed.

##### **Advice on protection against fire and explosion**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

##### **Hints on joint storage**

Keep away from:

Food and feedingstuffs

Oxidising agent

##### **Further information on storage conditions**

Keep away from:

Frost

Heat

Humidity

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

No information available.

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

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#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
108-65-6	1-Methoxypropyl acetate	50	274		TWA (8 h)	WEL
		100	548		STEL (15 min)	WEL
71-36-3	Butan-1-ol	50	154		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
7440-66-6	zinc powder - zinc dust (stabilized)			
Worker DNEL, long-term		inhalation	systemic	5 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	2,5 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,83 mg/kg bw/day
1330-20-7	xylene			
Worker DNEL, long-term		inhalation	local	221 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	65,3 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	systemic	221 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	442 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	442 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	212 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	65,3 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	systemic	260 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	260 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	125 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	12,5 mg/kg bw/day
108-65-6	2-methoxy-1-methylethyl acetate			
Worker DNEL, long-term		inhalation	systemic	275 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	550 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	796 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	33 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	33 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	320 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	36 mg/kg bw/day
71-36-3	n-Butanol; Butan-1-ol			
Worker DNEL, long-term		inhalation	local	310 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	55,357 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	155 mg/m <sup>3</sup>

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Consumer DNEL, long-term	dermal	systemic	3,125 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	1,562 mg/kg bw/day
68512-30-1	Phenol, methylstyrenated		
Worker DNEL, long-term	inhalation	systemic	57 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	16,4 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	28 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	8 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	4 mg/kg bw/day
1314-13-2	zinc oxide		
Worker DNEL, long-term	inhalation	systemic	5 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local	0,5 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	2,5 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,83 mg/kg bw/day
123-26-2	N,N'-ethane-1,2-diy/bis(12-hydroxyoctadecan-1-amide)		
Worker DNEL, long-term	inhalation	local	3,35 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	local	0,83 mg/m <sup>3</sup>
	Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine		
Worker DNEL, long-term	inhalation	systemic	0,75 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	0,43 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,37 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	0,21 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,11 mg/kg bw/day

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#### PNEC values

CAS No	Substance		Value
Environmental compartment			
7440-66-6	zinc powder - zinc dust (stabilized)		
Freshwater			0,0206 mg/l
Marine water			0,0061 mg/l
Freshwater sediment			235,6 mg/kg
Marine sediment			121 mg/kg
Micro-organisms in sewage treatment plants (STP)			0,1 mg/l
Soil			106,8 mg/kg
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
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
71-36-3	n-Butanol; Butan-1-ol		
Freshwater			0,082 mg/l
Freshwater (intermittent releases)			2,25 mg/l
Marine water			0,008 mg/l
Freshwater sediment			0,324 mg/kg
Marine sediment			0,032 mg/kg
Micro-organisms in sewage treatment plants (STP)			2476 mg/l
Soil			0,017 mg/kg
68512-30-1	Phenol, methylstyrenated		
Freshwater			0,014 mg/l

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Freshwater (intermittent releases)	0,14 mg/l
Marine water	0,0014 mg/l
Freshwater sediment	52,9 mg/kg
Marine sediment	5,3 mg/kg
Micro-organisms in sewage treatment plants (STP)	2,4 mg/l
Soil	10,5 mg/kg
1314-13-2	zinc oxide
Freshwater	0,0206 mg/l
Marine water	0,0061 mg/l
Freshwater sediment	117,8 mg/kg
Marine sediment	56,5 mg/kg
Micro-organisms in sewage treatment plants (STP)	0,1 mg/l
Soil	35,6 mg/kg
123-26-2	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)
Micro-organisms in sewage treatment plants (STP)	0,1 mg/l
	Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine
Freshwater	0,194 mg/l
Freshwater (intermittent releases)	0,097 mg/l
Marine water	0,019 mg/l
Freshwater sediment	29,6 mg/kg
Marine sediment	2,96 mg/kg
Secondary poisoning	0,416 mg/kg
Micro-organisms in sewage treatment plants (STP)	100 mg/l
Soil	120 mg/kg

### 8.2. Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

#### Protective and hygiene measures

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. 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

goggles

#### Hand protection

Tested protective gloves must be worn: EN ISO 374

NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

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Wearing time with permanent contact: Thickness of the glove material:  $\geq 0,4$  mm, Breakthrough time (maximum wearing time):  $>480$  min  
Wearing time with occasional contact (splashes):: Thickness of the glove material:  $\geq 0,1$  mm, Breakthrough time (maximum wearing time)  $> 30$  min  
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.  
Breakthrough times and swelling properties of the material must be taken into consideration.

#### Skin protection

Protective clothing

#### Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Combination filtering device (EN 14387) ABEK-P2

Self-contained respirator (breathing apparatus) (DIN EN 133)

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	various
Odour:	characteristic
pH-Value:	No data available

#### Changes in the physical state

Melting point:	No data available
Initial boiling point and boiling range:	137 - 143 °C
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
Flash point:	30 °C

#### Flammability

Solid:	No data available
Gas:	No data available

#### Explosive properties

not explosive according to EU A.14  
Vapours can form explosive mixtures with air.

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Ignition temperature:	315 °C

#### Auto-ignition temperature

Solid:	No data available
Gas:	No data available

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Decomposition temperature: No data available

#### **Oxidizing properties**

Not oxidising.

Vapour pressure: No data available

Density: 2,632 g/cm<sup>3</sup>

Water solubility: Immiscible

#### **Solubility in other solvents**

No information available.

Partition coefficient: No data available

Viscosity / dynamic: No data available

Viscosity / kinematic:  
(at 20 °C) 100 mm<sup>2</sup>/s

Vapour density: No data available

Evaporation rate: No data available

Solvent content: 13,6

#### **9.2. Other information**

Solid content: 87,0

No information available.

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

The product is stable under storage at normal ambient temperatures.

#### **10.2. Chemical stability**

The substance is chemically stable under recommended conditions of storage, use and temperature.

#### **10.3. Possibility of hazardous reactions**

No information available.

#### **10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

#### **10.5. Incompatible materials**

No information available.

#### **10.6. Hazardous decomposition products**

No information available.

### SECTION 11: Toxicological information

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

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

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7440-66-6	zinc powder - zinc dust (stabilized)				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1996)	OECD Guideline 401
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 6700 mg/l	Rat	Toxicol Appl Pharmacol 33:543-558. (1975)	EU Method B.2
	inhalation aerosol	ATE 1,5 mg/l			
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
	inhalation (4 h) aerosol	LC50 >23,878 mg/l	Rat		
1314-13-2	zinc oxide				
	oral	LD50 > 5000 mg/kg	Rat	Publication (1977)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2010)	OECD Guideline 402
	inhalation (4 h) aerosol	LC50 >5,7 mg/l	Rat		
71-36-3	n-Butanol; Butan-1-ol				
	oral	LD50 ca. 2292 mg/kg	Rat	Study report (1967)	OECD Guideline 401
	dermal	LD50 ca. 3430 mg/kg	Rabbit	Study report (1951)	OECD Guideline 402
68512-30-1	Phenol, methylstyrenated				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2007)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2009)	OECD Guideline 402
123-26-2	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2012)	OECD Guideline 423
	inhalation (4 h) aerosol	LC50 >5050 mg/l	Rat		

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Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine						
	oral	LD50 mg/kg	> 300	Rat	Study report	OECD Guideline 423
	dermal	LD50 mg/kg	> 5000	Rat	Study report	OECD Guideline 402

#### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

#### Sensitising effects

May cause an allergic skin reaction. (Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis(oxirane); Phenol, methylstyrenated; N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide); Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine)

#### 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.

## SECTION 12: Ecological information

### 12.1. Toxicity

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7440-66-6	zinc powder - zinc dust (stabilized)					
	Acute fish toxicity	LC50 mg/l	0,315	96 h	Thymallus arcticus	Ecotoxicology and environmental safety 2 other: American Society for testing matr
	Acute crustacea toxicity	EC50 mg/l	1,22	48 h	Daphnia magna	Publication (1995) other: US EPA/600/4-85/013 : methods for
	Fish toxicity	NOEC mg/l	0,44	72 d	Oncorhynchus mykiss	Trans. Am. Fish. Soc. 111, 70-77 (1982) lab -designed dose response test with sm
	Algea toxicity	NOEC mg/l	1,071	16 d	Macrocystis pyrifera	Mar Environ Res 26(2):113-134 (1988) 16-d and 2-d toxicity test to early life
	Crustacea toxicity	NOEC mg/l	0,031	50 d	Daphnia magna	Aquatic Toxicology 12,273-290 (1988) chronic tests were performed for an exte
	Acute bacteria toxicity	(5,2 mg/l)		3 h	activated sludge of a predominantly domestic sewage	Water research volume 17, nr10, 1363-136 OECD Guideline 209
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
108-65-6	2-methoxy-1-methylethyl acetate					
	Acute fish toxicity	LC50 mg/l	100 - 180	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

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	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
1314-13-2	zinc oxide						
	Acute fish toxicity	LC50 mg/l	0,315	96 h	Thymallus arcticus	Ecotoxicology and environmental safety 2	other: American Society for testing matr
	Acute algae toxicity	ErC50 mg/l	0,74	96 h	Anabaena sp.	Environmental Toxicology 30:895-903 (201	Algae groups exposed to different condit
	Acute crustacea toxicity	EC50 mg/l	1,22	48 h	Daphnia magna	Publication (1995)	other: US EPA/600/4-85/013 : methods for
	Fish toxicity	NOEC mg/l	0,44	72 d	Oncorhynchus mykiss	Trans. Am. Fish. Soc. 111, 70-77 (1982)	lab -designed dose response test with sm
	Algea toxicity	NOEC mg/l	1,071	16 d	Macrocystis pyrifera	Mar Environ Res 26(2):113-134 (1988)	16-d and 2-d toxicity test to early life
	Crustacea toxicity	NOEC mg/l	0,031	50 d	Daphnia magna	Aquatic Toxicology 12,273-290 (1988)	chronic tests were performed for an exte
	Acute bacteria toxicity	(5,2 mg/l)		3 h	activated sludge of a predominantly domestic sewage	Water research volume 17, nr10, 1363-136	OECD Guideline 209
71-36-3	n-Butanol; Butan-1-ol						
	Acute fish toxicity	LC50 mg/l	1376	96 h	Pimephales promelas	Study report (1998)	OECD Guideline 203
	Acute algae toxicity	ErC50	225 mg/l	96 h	Pseudokirchneriella subcapitata	Study report (1998)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	1328	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202
	Crustacea toxicity	NOEC	4,1 mg/l	21 d	Daphnia magna	Study report (1996)	OECD Guideline 211
68512-30-1	Phenol, methylstyrenated						
	Acute algae toxicity	ErC50	15 mg/l	72 h	Desmodesmus subspicatus	Study report (2009)	OECD Guideline 201
	Acute crustacea toxicity	EC50	17 mg/l	48 h	Daphnia magna	Study report (2010)	OECD Guideline 202
123-26-2	N,N'-ethane-1,2-diybis(12-hydroxyoctadecan-1-amide)						
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Pseudokirchneriella subcapitata, Strain No. CCAP 2	Study report (2013)	EU Method C.3

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	Acute crustacea toxicity	EC50 mg/l	> 10	48 h	Daphnia magna	Study report (2013)	OECD Guideline 202
Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine							
	Acute fish toxicity	LC50 mg/l	0,1 - 1	96 h	Danio rerio	<a href="http://www.echa.europa.eu/documents/1016">http://www.echa.europa.eu/documents/1016</a>	Literature
	Acute algae toxicity	ErC50 mg/l	26,8	72 h	Desmodesmus subspicatus	Study report (2013)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,01 - 0,013	48 h	Daphnia magna	<a href="http://www.echa.europa.eu/documents/1016">http://www.echa.europa.eu/documents/1016</a>	Literature
	Crustacea toxicity	NOEC mg/l	> 10	21 d	Daphnia magna	Study report (2013)	OECD Guideline 211
	Acute bacteria toxicity		(> 1000 mg/l)	3 h	activated sludge of a predominantly domestic sewage	Study report (2013)	OECD Guideline 209

#### 12.2. Persistence and degradability

No information available.

#### 12.3. Bioaccumulative potential

##### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1330-20-7	xylene	3,2
108-65-6	2-methoxy-1-methylethyl acetate	1,2
71-36-3	n-Butanol; Butan-1-ol	10
68512-30-1	Phenol, methylstyrenated	3,627
123-26-2	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	>= 5,86
	Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine	13,18

#### BCF

CAS No	Chemical name	BCF	Species	Source
7440-66-6	zinc powder - zinc dust (stabilized)	28960	Palaemon elegans	Hydrobiologia 174,24
1330-20-7	xylene	> 5,5 - < 12,2	Oncorhynchus mykiss	Appl. Sci. Branch, E
1314-13-2	zinc oxide	0,002	Danio rerio	Ware Research 1:99-
71-36-3	n-Butanol; Butan-1-ol	3,16		QSAR (2017)
68512-30-1	Phenol, methylstyrenated	165	Cyprinus carpio	<a href="http://www.safe.nite">http://www.safe.nite</a>
	Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine	0,871		Catalogic calculatio

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#### **12.4. Mobility in soil**

No information available.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### **12.6. Other adverse effects**

No information available.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Disposal recommendations**

Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

<b><u>14.1. UN number:</u></b>	UN 1263
<b><u>14.2. UN proper shipping name:</u></b>	Paint
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	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)**

<b><u>14.1. UN number:</u></b>	UN 1263
<b><u>14.2. UN proper shipping name:</u></b>	Paint
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	III
Hazard label:	3
Classification code:	F1
Special Provisions:	163 367 650
Limited quantity:	5 L
Excepted quantity:	E1

#### **Marine transport (IMDG)**

<b><u>14.1. UN number:</u></b>	UN 1263
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<b>14.2. UN proper shipping name:</b>	Paint
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3
Marine pollutant:	P
Special Provisions:	163, 223, 367, 955
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-E

#### Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number:</b>	UN 1263
<b>14.2. UN proper shipping name:</b>	Paint
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	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:	yes
Danger releasing substance:	Zinc

#### 14.6. Special precautions for user

No information available.

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

No information available.

### 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 40: n-Butanol; Butan-1-ol

2004/42/EC (VOC): 13,63

##### National regulatory information

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Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.
Water hazard class (D):	2 - obviously hazardous to water

#### **15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

zinc powder - zinc dust (stabilized)

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-  
((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis(oxirane)

xylene

2-methoxy-1-methylethyl acetate

n-Butanol; Butan-1-ol

Phenol, methylstyrenated

zinc oxide

N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)

Reaction products of fatty acids, tall oil and fatty acids, C18 unsaturated, trimers and fatty acids, C18 unsaturated, dimers with (9Z)-octadec-9-en-1-amine

#### **SECTION 16: Other information**

##### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer

(Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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%

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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  
 SVHC: Substance of Very High Concern

#### 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
Skin Sens. 1A; H317	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

#### Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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