

Safety Data Sheet Brilliance

according to UK REACH Regulation

Date: 19.11.2020

Revision date: 11.01.2024

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

1.1. Product identifier

Brilliance

Further trade names / Item numbers

Sunflower Yellow (11), Victorian Violet (17), Mediterranean Blue (18), Gamma Green (21), Rocket Red (23), Pearlescent Yellow (30), Pearlescent Orange (31), Pearlescent Coral (32), Pearlescent Orchid (34), Pearlescent Purple (36), Pearlescent Lavender (37), Pearlescent Sky Blue (38), Pearlescent Jade (41), Pearlescent Lime (42), Pearlescent Olive (53), Coffee Bean (54), Pearlescent Beige (55), Pearlescent Rust (61), Pearlescent Crimson (62), Pearlescent Poppy (63), Pearlescent Ivy (64), Pearlescent Ice Blue (74), Pearlescent Thyme (75), Pearlescent Chocolate (76). Moonlight White (80), Graphite Black (82), Starlite Black (90), Galaxy Gold (91), Platinum Planet (92), Starlite Silver (93), Cosmic Copper (94), Lightning Black (95), Rocket Red Gold (96), Crimson Copper (97)

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

Use of the substance/mixture

Ink

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	TSUKINEKO Co., Ltd
Street:	5F Suehiro JF Bldg., 5-1-5, Sotokanda Chiyoda-ku
Place:	Tokyo 101-0021, JAPAN
Telephone:	+81-3-3834-1080
e-mail:	info@tsukineko.co.jp
Internet:	www.tsukineko.co.jp
Responsible Department:	Product safety Mo-Fr (8:30-17:00 h)



1.4. Emergency telephone number: +81-3-3834-1080

Australian Importer Information

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

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P501 Dispose of waste according to applicable legislation.

Special labelling of certain mixtures

EUH208 Contains triethanolamine; 2-methylisothiazol-3(2H)-one; 1,2-benzisothiazol-3(2H)-one; reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

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

2.3. Other hazards

Results of PBT and vPvB assessment: not applicable.

Endocrine disrupting properties: No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Solvents, water, binder, colourants, additives (emulsifier, antioxidant, surfactant, thickener/thickening agent, humectant, preservative)

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
13463-67-7	titanium dioxide			≤ 20%
	236-675-5		01-2119489379-17	
	Carc. 2; H351 Note V, W, 10			
7429-90-5	Aluminium powder (stabilised)			≤ 15%
	231-072-3		01-2119529243-45	
	Flam. Sol. 1, Water-react. 2; H228 H261			
102-71-6	triethanolamine			< 1%
	203-049-8		01-2119486482-31	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H315 H319 H317 H335			
68131-40-8	Alcohols, C11-15-secondary, ethoxylated			< 0.5%
	614-295-4		01-2119560577-29	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1; H302 H315 H318 H400			
128-37-0	2,6-di-tert-butyl-p-cresol			< 0.5%
	204-881-4		01-2119565113-46	
	Repr. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 1, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H361 H302 H315 H319 H370 H373 H400 H410			
2634-33-5	1,2-benzisothiazol-3(2H)-one			< 0.02%

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	220-120-9	613-088-00-6	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1; H302 H315 H318 H317 H400		
2682-20-4	2-methylisothiazol-3(2H)-one		< 0.0015%
	220-239-6	613-326-00-9	
	Acute Tox. 2, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H330 H310 H301 H314 H318 H317 H400 H410 EUH071		
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)		< 0.0015%
	-	613-167-00-5	
	Acute Tox. 2, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H330 H310 H301 H314 H318 H317 H400 H410 EUH071		

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		
13463-67-7	236-675-5	titanium dioxide	≤ 20%
	oral: LD50 ≥ 2000 mg/kg		
7429-90-5	231-072-3	Aluminium powder (stabilised)	≤ 15%
	oral: LD50 ≥ 15900 mg/kg		
102-71-6	203-049-8	triethanolamine	<1%
	dermal: LD50 ≥ 2000 mg/kg; oral: LD50 = 6400 mg/kg		
68131-40-8	614-295-4	Alcohols, C11-15-secondary, ethoxylated	<0.5%
	dermal: LD50 ≥ 2000 mg/kg; oral: LD50 ≥ 2000 mg/kg		
128-37-0	204-881-4	2,6-di-tert-butyl-p-cresol	<0.5%
	dermal: LD50 ≥ 2000 mg/kg; oral: LD50 ≥ 6000 mg/kg		
2634-33-5	220-120-9	1,2-benzisothiazol-3(2H)-one	<0.0015%
	dermal: LD50 ≥ 2000 mg/kg; oral: LD50 = 490-670 mg/kg Skin Sens. 1; H317: ≥ 0.05 - 100		
2682-20-4	220-239-6	2-methylisothiazol-3(2H)-one	<0.0015%
	inhalation: ATE = 0.5 mg/l (vapours); inhalation: ATE = 0.05 mg/l (dusts or mists); dermal: LD50 = 242-2000 mg/kg; oral: LD50 = 120-327.7 mg/kg Skin Sens. 1A; H317: ≥ 0.0015 - 100 Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1		

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55965-84-9	-	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	<0.0015%
inhalation: ATE = 0.5 mg/l (vapours); inhalation: ATE = 0.05 mg/l (dusts or mists); dermal: ATE = 50 mg/kg; oral: LD50 = 53 mg/kg Skin Corr. 1C; H314: ≥ 0.6 - 100 Skin Irrit. 2; H315: ≥ 0.06 - < 0.6 Eye Dam. 1; H318: ≥ 0.6 - 100 Eye Irrit. 2; H319: ≥ 0.06 - < 0.6 Skin Sens. 1A; H317: ≥ 0.0015 - 100 Aquatic Acute 1; H400: M=100 Aquatic Chronic 1; H410: M=100			

Further Information

Note V: If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≤ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.

Note W: It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

Note 10: The classification as a „carcinogen by inhalation“ applies only to mixtures in powder form containing 1% or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice.

After inhalation

Provide fresh air.

After contact with skin

Wash with plenty of water/soap. In case of skin irritation, consult a physician.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water.

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

May produce an allergic reaction.

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

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Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

This material is combustible, but will not ignite readily.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Co-ordinate fire-fighting measures to the fire surroundings.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes and clothes.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

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.

For cleaning up

To clean the floor and all objects contaminated by this materials, use plenty of water.

Provide adequate ventilation.

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

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Handle and open container with care.

Provide adequate ventilation.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Remove all sources of ignition. Keep container tightly closed. Store in a cool dry place.

Ensure adequate ventilation of the storage area.

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

Recommended storage temperature: at room temperature

7.3. Specific end use(s)

Ink for stamp pads

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
111-46-6	2,2'-Oxydiethanol	23	101		TWA (8 h)	WEL
128-37-0	2,6-Di-tert-butyl-p-cresol	-	10		TWA (8 h)	WEL
7429-90-5	Aluminium metal, inhalable dust	-	10		TWA (8 h)	WEL
7429-90-5	Aluminium metal, respirable dust	-	4		TWA (8 h)	WEL
1333-86-4	Carbon black	-	3.5		TWA (8 h)	WEL
		-	7		STEL (15 min)	WEL
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL
12001-26-2	Mica, respirable	-	0.8		TWA (8 h)	WEL
12001-26-2	Mica, total inhalable	-	10		TWA (8 h)	WEL
57-55-6	Propane-1,2-diol, particulates	-	10		TWA (8 h)	WEL
1309-37-1	Rouge, respirable	-	4		TWA (8 h)	WEL
1309-37-1	Rouge, total inhalable	-	10		TWA (8 h)	WEL
-	Silica, amorphous, inhalable dust	-	6		TWA (8 h)	WEL
-	Silica, amorphous, respirable dust	-	2.4		TWA (8 h)	WEL
13463-67-7	Titanium dioxide, respirable	-	4		TWA (8 h)	WEL
13463-67-7	Titanium dioxide, total inhalable	-	10		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type	Exposure route	Effect	Value	
13463-67-7	titanium dioxide			
Worker DNEL, long-term	inhalation	local	0.17 mg/m ³	

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Consumer DNEL, long-term	inhalation	local	0.028 mg/m ³
7429-90-5	Aluminium powder (stabilised)		
Worker DNEL, long-term	inhalation	systemic&local	3.72 mg/m ³
Consumer DNEL, long-term	oral	systemic	3.95 mg/kg bw/day
57-55-6	Propane-1,2-diol		
Worker DNEL, long-term	inhalation	systemic	
Worker DNEL, long-term	inhalation	local	
Consumer DNEL, long-term	inhalation	systemic	3.72 mg/m ³
Consumer DNEL, long-term	inhalation	local	3.95 mg/kg bw/day
111-46-6	diethylene glycol		
Worker DNEL, long-term	inhalation	systemic	44 mg/m ³
Worker DNEL, long-term	dermal	systemic	43 mg/kg bw/day
Worker DNEL, long-term	inhalation	local	60 mg/m ³
Consumer DNEL, long-term	inhalation	systemic	12 mg/m ³
Consumer DNEL, long-term	inhalation	local	12 mg/m ³
Consumer DNEL, long-term	dermal	systemic	21 mg/kg bw/day
102-71-6	triethanolamine		
Worker DNEL, long-term	inhalation	local	1 mg/m ³
Worker DNEL, long-term	dermal	systemic	7.5 mg/kg bw/day
Worker DNEL, long-term	dermal	local	0.14 mg/cm ²
Consumer DNEL, long-term	inhalation	local	0.4 mg/m ³
Consumer DNEL, long-term	dermal	systemic	2.66 mg/kg bw/day
Consumer DNEL, long-term	dermal	local	0.07 mg/cm ²
Consumer DNEL, long-term	oral	systemic	3.3 mg/kg bw/day
68131-40-8	Alcohols, C11-15-secondary, ethoxylated		
Worker DNEL, long-term	inhalation	systemic	42.32 mg/m ³
Worker DNEL, long-term	dermal	systemic	6 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	21.16 mg/m ³
Consumer DNEL, long-term	dermal	systemic	3 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	3 mg/kg bw/day
128-37-0	2,6-di-tert-butyl-p-cresol		
Worker DNEL, long-term	inhalation	systemic	1.76 mg/m ³
Worker DNEL, long-term	dermal	systemic	0.5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0.435 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0.25 mg/kg bw/day

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Consumer DNEL, long-term	oral	systemic	0.25 mg/kg bw/day
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PNEC values

CAS No	Substance	Value
Environmental compartment		
		Value
7429-90-5	Aluminium powder (stabilised)	
Micro-organisms in sewage treatment plants (STP)		20 mg/l
57-55-6	Propane-1,2-diol	
Freshwater		260 mg/l
Freshwater (intermittent releases)		183 mg/l
Marine water		26 mg/l
Freshwater sediment		572 mg/kg
Marine sediment		57.2 mg/kg
Micro-organisms in sewage treatment plants (STP)		20000 mg/l
Soil		50 mg/kg
1333-86-4	carbon black	
Freshwater		50 mg/l
102-71-6	triethanolamine	
Freshwater		0.32 mg/l
Freshwater (intermittent releases)		5.12 mg/l
Marine water		0.032 mg/l
Freshwater sediment		1.7 mg/kg
Marine sediment		0.17 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0.151 mg/kg
68131-40-8	Alcohols, C11-15-secondary, ethoxylated	
Freshwater		0.02 mg/l
Freshwater (intermittent releases)		0.015 mg/l
Marine water		0.002 mg/l
Marine water (intermittent releases)		0.0015 mg/l
Freshwater sediment		28.1 mg/kg
Marine sediment		2.81 mg/kg
Secondary poisoning		22.2 mg/kg
Micro-organisms in sewage treatment plants (STP)		8.24 mg/l
Soil		5.6 mg/kg
128-37-0	2,6-di-tert-butyl-p-cresol	

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Freshwater	0.199 µg/l
Freshwater (intermittent releases)	1.99 µg/l
Marine water	0.02 µg/l
Freshwater sediment	0.458 mg/kg
Marine sediment	0.046 mg/kg
Secondary poisoning	16.67 mg/kg
Micro-organisms in sewage treatment plants (STP)	17 µg/l
Soil	0.1054 mg/kg
2634-33-5	1,2-benzisothiazol-3(2H)-one
Freshwater	4.03 µg/l
Freshwater (intermittent releases)	1.1 µg/l
Marine water	0.4 µg/l
Marine water (intermittent releases)	0.11 µg/l
Freshwater sediment	49.9 µg /kg
Marine sediment	4.99 µg /kg
Micro-organisms in sewage treatment plants (STP)	1.03 mg/l
Soil	3 mg/kg

8.2. Exposure controls



Appropriate engineering controls

Do not breathe gas/fumes/vapour/spray. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Wear protective gloves. Recommended material: NR (Natural rubber (Caoutchouc), Natural latex), NBR (Nitrile rubber), FKM (fluoro rubber), CR (polychloroprene, chloroprene rubber), Butyl caoutchouc (butyl rubber), PVC (polyvinyl chloride).

Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Protective clothing: lab coat, boots

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	various
Odour:	characteristic
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	>100 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	>80 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value(at 20 °C):	6-8
Water solubility(at 20 °C):	miscible
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	~ 1 g/cm ³
Relative vapour density:	not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not explosive.

Oxidizing properties

The product is not oxidising.

Other safety characteristics

Evaporation rate: not determined

Solid content: not determined

Further Information

VOC value (EU): 5.5 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

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The product is stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Oxidizing agents

10.6. Hazardous decomposition products

Thermal decomposition: metal oxides, carbon oxides (COx), nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
13463-67-7	titanium dioxide				
	oral	LD50 18080mg/kg	Rat	IUCLID	
7429-90-5	Aluminium powder (stabilised)				
	oral	LD50 >15900mg/kg	Rat	IUCLID	OECD 401
102-71-6	triethanolamine				
	oral	LD50 6400mg/kg	Rat	IUCLID	OECD 401
	dermal	LD50 >2000mg/kg	Rabbit	IUCLID	OECD 402
68131-40-8	Alcohols, C11-15-secondary, ethoxylated				
	oral	LD50 ≥ 2000mg/kg	Rat	IUCLID	OECD 423
	dermal	LD50 >2000mg/kg	Rat	IUCLID	OECD 402
128-37-0	2,6-di-tert-butyl-p-cresol				
	oral	LD50 > 6000mg/kg	Rat	IUCLID	OECD 401
	dermal	LD50 >2000mg/kg	Rat	IUCLID	OECD 402
2634-33-5	1,2-benzisothiazol-3(2H)-one				
	oral	LD50 490-670 mg/kg	Rat	IUCLID	OECD 401
	dermal	LD50 >2000mg/kg	Rat	IUCLID	OECD 402
2682-20-4	2-methylisothiazol-3(2H)-one				
	oral	LD50 120-327.7 mg/kg	Rat	IUCLID	
	dermal	LD50 242-2000mg/kg	Rat	IUCLID	
	inhalation vapour	ATE 0.5 mg/l			

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	inhalation dust/mist	ATE 0.05 mg/l			
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)				
	oral	LD50 53mg/kg	Rat	literature value	
	dermal	ATE 50mg/kg			
	inhalation vapour	ATE 0.5mg/l			
	inhalation dust/mist	ATE 0.05mg/l			

Irritation and corrosivity

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

Sensitising effects

Contains triethanolamine; 2-methylisothiazol-3(2H)-one; 1,2-benzisothiazol-3(2H)-one; reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic Reaction.

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.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

Further information

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
13463-67-7	titanium dioxide					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Pimephales promelas	IUCLID	
	Acute crustacea toxicity	EC50 >1000 mg/l	48 h	Daphnia magna	IUCLID	OECD 202
102-71-6	triethanolamine					
	Acute fish toxicity	LC50 11800 mg/l	96 h	Pimephales promelas	Supplier	APHA method

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	Acute algae toxicity	ErC50 216 mg/l	72 h	Desmodemus subspicatus	Supplier	
	Acute crustacea toxicity	EC50 609.88 mg/l	48 h	Ceriodaphnia dubia	IUCLID	ASTM Designation E1192
	Acute bacteria toxicity	(EC50 >1000 mg/l)	3 h	Activated sludge	IUCLID	OECD 209
68131-40-8	Alcohols, C11-15-secondary, ethoxylated					
	Acute fish toxicity	LC50 1.6 mg/l	96 h	Pimephales promelas	literature value	
	Acute crustacea toxicity	EC50 1.3 mg/l	48 h	Daphnia magna	literature value	
128-37-0	2,6-di-tert-butyl-p-cresol					
	Acute fish toxicity	LC50 1.1 mg/l	96 h	Oryzias latipes	IUCLID	OECD 203
	Acute algae toxicity	EC50 >0.24 mg/l	72 h	Pseudokirchneriella subcapitata	IUCLID	OECD 201
	Acute crustacea toxicity	EC50 0.48 mg/l	48 h	Daphnia magna	IUCLID	OECD 202
2634-33-5	1,2-benzisothiazol-3(2H)-one					
	Acute fish toxicity	LC50 2.15-22 mg/l	96 h	Cyprinodon variegatus	IUCLID	EPA 540/9-85-006

12. 2. Persistence and degradability

The polymer part of the product is poorly biodegradable. Polymers can be eliminated from water by abiotic processes, e.g. adsorption on activated sludge. Technically correct releases of minimal concentrations to adapted biological sewage plants, will not disturb the biodegradability of activated sludge.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
102-71-6	triethanolamine			
	OECD 301 E	> 60 %	28	IUCLID
	Readily biodegradable (according to OECD criteria).			
68131-40-8	Alcohols, C11-15-secondary, ethoxylated			
	OECD 301C (MITI test) / OECD 301F	> 60 %	10	IUCLID
	Readily biodegradable (according to OECD criteria).			
	OECD 301 B	> 60 %	28	literature value
	Readily biodegradable (according to OECD criteria).			
128-37-0	2,6-di-tert-butyl-p-cresol			
	OECD 301 C	< 10%	20	IUCLID
	Not readily biodegradable (according to OECD criteria).			

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12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
102-71-6	triethanolamine	-1
68131-40-8	Alcohols, C11-15-secondary, ethoxylated	5.3
128-37-0	2,6-di-tert-butyl-p-cresol	5.2
2634-33-5	1,2-benzisothiazol-3(2H)-one	0.7
2682-20-4	2-methylisothiazol-3(2H)-one	0.119

BCF

CAS No	Chemical name	BCF	Species	Source
102-71-6	triethanolamine	< 3.9	Cyprinus carpio	Supplier
68131-40-8	Alcohols, C11-15-secondary, ethoxylated	178-3010	aquatic species	IUCLID
128-37-0	2,6-di-tert-butyl-p-cresol	1277	aquatic species	IUCLID
2634-33-5	1,2-benzisothiazol-3(2H)-one	6.62	Lepomis macrochirus	IUCLID

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

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.

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.

Contaminated packaging

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

SECTION 14: Transport information

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Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

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 40, Entry 75: not applicable

Information according to 2012/18/EU(SEVESO III): Not subject to 2012/18/EU (SEVESO III)

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): 1 - slightly hazardous to water

15.2. Chemical safety assessment

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

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SECTION 16: Other information

Changes

Revised due to Regulation (EU) No 2020/878

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 estimat

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

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

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

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SVHC: Substance of Very High Concern

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Key literature references and sources for data

Registration Dossiers according to Regulation (EC) No. 1907/2006 [REACH].

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H228	Flammable solid.
H261	In contact with water releases flammable gases.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs.
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.
EUH071	Corrosive to the respiratory tract.
EUH208	Contains triethanolamine; 2-methylisothiazol-3(2H)-one; 1,2-benzisothiazol-3(2H)-one; reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product

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properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Inks and toners	C	-	18	-	-	-	-	Ink

LCS: Life cycle stages

SU: Sectors of use

PC: Product categories

PROC: Process categories

ERC: Environmental release categories

AC: Article categories

TF: Technical functions

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