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

1.1. Product identifier

wallTastic UV ink Cyan

UFI: JC00-60J1-T007-GWUD

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

Use of the substance/mixture

Ink jet colour
Industrial uses

Uses advised against

all uses which are not mentioned above

1.3. Details of the supplier of the safety data sheet

Company name:	wallPen GmbH	
Street:	Werkstr. 15	
Place:	D-57537 Wissen	
Telephone:	+49 2742 966800	
E-mail:	info@wallpen.com	
Contact person:	Zentrale	Telephone: +49 2742 966800
E-mail:	info@wallpen.com	
Internet:	https://www.wallpen.com/de	
Responsible Department:	management	

1.4. Emergency telephone number:

+49 2742 966800 (Mo.-Fr. 7-17:00)

Further Information

No information available.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Skin Irrit. 2; H315
Eye Dam. 1; H318
Skin Sens. 1; H317
Repr. 1B; H360Fd
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

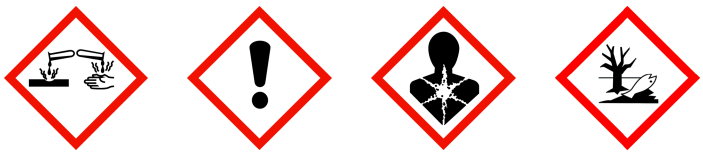
GB CLP Regulation

Hazard components for labelling

Oxybis(methyl-2,1-ethanediyl) diacrylate
2-(2-Vinyloxyethoxy)ethyl acrylate
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Ethyl 4-dimethylaminobenzoate

Signal word: Danger

Pictograms:



Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER/doctor.

Special labelling of certain mixtures

Restricted to professional users.

2.3. Other hazards

Endocrine disrupting properties: 2,6-di-tert-butyl-p-cresol.
Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
This product contains a substance that has endocrine disrupting properties with respect to humans.
2,6-di-tert-butyl-p-cresol SVHC substance. (List II) (5-<10%)
octamethylcyclotetrasiloxane CAS: 556-67-2 SVHC substance. (List II) (0-<0,1%)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate			50 - < 55 %
	260-754-3		01-2119484629-21	
	Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1; H315 H318 H317			
86273-46-3	2-(2-Vinyloxyethoxy)ethyl acrylate			15 - < 20 %
	451-690-9		01-2119441302-54	
	Acute Tox. 4, Skin Sens. 1, Aquatic Chronic 3; H302 H317 H412			
67906-98-3	2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol			5 - < 10 %
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335			
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			5 - < 10 %
	278-355-8	015-203-00-X	01-2119972295-29	
	Repr. 1B, Skin Sens. 1B, Aquatic Chronic 2; H360Fd H317 H411			
10287-53-3	Ethyl 4-dimethylaminobenzoate			2.5 - < 5 %
	233-634-3			
	Repr. 1B, Aquatic Chronic 2; H360F H411			
5495-84-1	2-Isopropyl-9H-thioxanthen-9-on			1 - < 2.5 %
	226-827-9		01-2120769513-49	
	Repr. 2, Aquatic Acute 1, Aquatic Chronic 1; H361f H400 H410			
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			0.3 - < 1 %
	423-340-5	015-189-00-5	01-2119489401-38	
	Skin Sens. 1A, Aquatic Chronic 4; H317 H413			
13048-33-4	hexamethylene diacrylate, hexane-1,6-diol diacrylate			0.3 - < 1 %
	235-921-9	607-109-00-8	01-2119484737-22	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 2; H315 H319 H317 H400 H411			
128-37-0	2,6-di-tert-butyl-p-cresol			0.1 - < 0.3 %
	204-881-4		01-2119565113-46	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			
112-02-7	Cetrimonium chloride			< 0.1 %
	203-928-6		01-2119970558-23	
	Acute Tox. 3, Acute Tox. 4, Skin Corr. 1C, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H311 H302 H314 H318 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		
57472-68-1	260-754-3	Oxybis(methyl-2,1-ethanediyl) diacrylate	50 - < 55 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3530 mg/kg		
86273-46-3	451-690-9	2-(2-Vinyloxyethoxy)ethyl acrylate	15 - < 20 %
	dermal: LD50 = >2000 mg/kg; oral: LD50 = 1790 mg/kg		
75980-60-8	278-355-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5 - < 10 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
10287-53-3	233-634-3	Ethyl 4-dimethylaminobenzoate	2.5 - < 5 %
	oral: LD50 = >5000 mg/kg		
5495-84-1	226-827-9	2-Isopropyl-9H-thioxanthen-9-on	1 - < 2.5 %
	Aquatic Acute 1; H400: M=1 Aquatic Chronic 1; H410: M=1		
162881-26-7	423-340-5	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	0.3 - < 1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg		
13048-33-4	235-921-9	hexamethylene diacrylate, hexane-1,6-diol diacrylate	0.3 - < 1 %
	dermal: LD50 = 3650 mg/kg; oral: LD50 = > 5000 mg/kg		
128-37-0	204-881-4	2,6-di-tert-butyl-p-cresol	0.1 - < 0.3 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 6000 mg/kg Aquatic Acute 1; H400: M=1 Aquatic Chronic 1; H410: M=1		
112-02-7	203-928-6	Cetrimonium chloride	< 0.1 %
	dermal: LD50 = 528 mg/kg; oral: LD50 = 861 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1		

Further Information

REGULATION (EC) No 166/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC
The product contains:
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper CAS: 147-14-8 (1,0-10%)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Wear personal protection equipment (refer to section 8).
Provide fresh air.
Remove contaminated, saturated clothing immediately.
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 breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

If unconscious but breathing normally, place in recovery position and seek medical advice.

After contact with skin

IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
Solvents/Thinner
Wash contaminated clothing before reuse.
In case of skin irritation, consult a physician.

After contact with eyes

Protect uninjured eye.
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and even under the eyelids. Call a physician immediately.
Remove contact lenses, if present and easy to do. Continue rinsing.
Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

After ingestion

Seek medical advice immediately (poison centre). Rinse mouth. Never give anything by mouth to an unconscious person or a person with cramps. Put victim at rest, cover with a blanket and keep warm.

Observe risk of aspiration if vomiting occurs.

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.
Reference to other sections: 11

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 (CO2), Water spray jet
In case of major fire and large quantities: alcohol resistant foam, Water spray jet

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Gases/vapours, harmful

5.3. Advice for firefighters

Special protective equipment for firefighters: Flame-retardant protective clothing
In case of fire: Wear self-contained breathing apparatus.
Remove persons to safety.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

See protective measures under point 7 and 8.
Wear personal protection equipment (refer to section 8).
Avoid contact with skin, eyes and clothes.
Provide adequate ventilation.
In case of inadequate ventilation wear respiratory protection. Remove all sources of ignition.
To follow: Emergency procedures

For non-emergency personnel

Remove persons to safety. Keep away from unprotected people. Keep upwind.

For emergency responders

To follow: Emergency procedures
Suppress gases/vapours/mists with water spray jet.
The danger areas must be delimited and identified using relevant warning and safety signs.

6.2. Environmental precautions

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

For containment

Stop leak if safe to do so. Wipe up with absorbent material (eg. cloth, fleece).

Handling larger quantities: Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal. Don't store containers without labelling.

For cleaning up

Wash with plenty of water. Clean with detergents. Avoid solvent cleaners.
Retain contaminated washing water and dispose it.

Other information

Provide fresh air.

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

To follow: Restrictions of occupation
Wear personal protection equipment (refer to section 8).
Keep container tightly closed.
Provide adequate ventilation. In case of inadequate ventilation wear respiratory protection.
Minimum room ventilation rate for handling/application (air changes per hour): 10 x
Undertake operation under enclosed conditions. Transfer and handle product only in closed systems.
Avoid contact with skin, eyes and clothes.
Clear spills immediately. Avoid release to the environment.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.
Work in well-ventilated zones or use proper respiratory protection.
Only wear fitting, comfortable and clean protective clothing.
Street clothing should be stored separately from work 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.
Use protective skin cream before handling the product.
Make available sufficient washing facilities
Provide eye shower and label its location conspicuously

Further information on handling

Obtain, read and follow all safety instructions before use.
Obtain special instructions before use.
To follow: risk management measures
Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

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. Store in a dry place.
Keep/Store only in original container.
Protect against heat and direct sunlight.
Provide for retaining containers, e.g. floor pan without outflow.
Keep container carefully closed and upright to prevent any leakage.
Floors should be impervious, resistant to liquids and easy to clean.
Restrict general access to the store.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.
Keep away from: Incompatible materials

Further information on storage conditions

Keep away from:
Heat
Humidity
Frost

7.3. Specific end use(s)

Industrial uses

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
128-37-0	2,6-Di-tert-butyl-p-cresol	-	10		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate			
Worker DNEL, long-term		inhalation	systemic	2,35 mg/m³
Worker DNEL, long-term		dermal	systemic	1,7 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	7,24 mg/m³
Consumer DNEL, long-term		dermal	systemic	1,66 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	2,08 mg/kg bw/day
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			
Consumer DNEL, long-term		inhalation	systemic	0,145 mg/m³
Consumer DNEL, long-term		oral	systemic	0,0833 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,0833 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	0,822 mg/m³
Worker DNEL, long-term		dermal	systemic	0,233 mg/kg bw/day
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			
Worker DNEL, long-term		inhalation	systemic	21 mg/m³
Worker DNEL, long-term		dermal	systemic	3 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	5,2 mg/m³
Consumer DNEL, long-term		dermal	systemic	1,5 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	1,5 mg/kg bw/day
,				
13048-33-4	hexamethylene diacrylate, hexane-1,6-diol diacrylate			
Worker DNEL, long-term		inhalation	systemic	24,5 mg/m³
Worker DNEL, long-term		dermal	systemic	2,77 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	7,2 mg/m³
Consumer DNEL, long-term		dermal	systemic	1,66 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	2,1 mg/kg bw/day
128-37-0	2,6-di-tert-butyl-p-cresol			
Consumer DNEL, long-term		oral	systemic	0,25 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	1,76 mg/m³
Worker DNEL, long-term		dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,435 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,25 mg/kg bw/day
,				

PNEC values

CAS No	Substance	
Environmental compartment		Value
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate	
Freshwater		0,003 mg/l
Freshwater (intermittent releases)		0,034 mg/l
Marine water		0 mg/l
Freshwater sediment		0,019 mg/kg
Marine sediment		0,002 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		0,002 mg/kg
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	
Freshwater		0,0014 mg/l
Freshwater (intermittent releases)		0,014 mg/l
Marine water		0,00014 mg/l
Freshwater sediment		0,115 mg/kg
Marine sediment		0,0115 mg/kg
Soil		0,0222 mg/kg
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	
Freshwater		0,001 mg/l
Freshwater (intermittent releases)		0,001 mg/l
Marine water		0,001 mg/l
Freshwater sediment		0,712 mg/kg
Marine sediment		0,712 mg/kg
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		20 mg/kg
13048-33-4	hexamethylene diacrylate, hexane-1,6-diol diacrylate	
Freshwater		0,007 mg/l
Marine water		0,001 mg/l
Freshwater sediment		0,493 mg/kg
Marine sediment		0,049 mg/kg
Micro-organisms in sewage treatment plants (STP)		2,7 mg/l
Soil		0,094 mg/kg
128-37-0	2,6-di-tert-butyl-p-cresol	
Freshwater		0,000199 mg/l
Freshwater (intermittent releases)		0,00199 mg/l
Marine water		0,00002 mg/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)		0,017 mg/l
Soil		0,054 mg/kg

Additional advice on limit values

Observe in addition any national regulations!

8.2. Exposure controls

Appropriate engineering controls

Technical ventilation of workplace - Room air monitoring
Devices with local exhaust
Minimum room ventilation rate for handling/application (air changes per hour): >=10

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. EN 166

Hand protection

Tested protective gloves must be worn: EN ISO 374
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.
Unsuitable material:Fabric, Leather articles

Suitable material: Butyl caoutchouc (butyl rubber)
Wearing time with permanent contact
Thickness of the glove material: >0,7 mm
Permeation time (maximum wear duration): >480 min

Suitable material: NBR (Nitrile rubber)
Wearing time with occasional contact (splashes):
Thickness of the glove material: >0,35 mm
Permeation time (maximum wear duration): >60 min

Breakthrough times and swelling properties of the material must be taken into consideration.
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.
Wear cotton undermitten if possible.
Check leak tightness/impermeability prior to use.

Skin protection

Suitable protective clothing: Protective clothing DIN 13688
When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Respiratory protection

Usually no personal respirative protection necessary.
Respiratory protection necessary at: exceeding exposure limit values, aerosol or mist formation
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Thermal hazards

No information available.

Environmental exposure controls

Provide for retaining containers, e.g. floor pan without outflow.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	blue-green

Odour:	Acrylate	
Melting point/freezing point:		<32 °F/ <0 °C
Boiling point or initial boiling point and boiling range:		>212 °F/ >100 °C
Flammability:		Non-flammable.
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		>212 °F/ >100 °C
Decomposition temperature:		No data available
pH-Value:		practically insoluble
Viscosity / kinematic: (at 45 °C)		6,5-8,4 mm²/s
Water solubility:		practically insoluble

Solubility in other solvents

No information available.

Partition coefficient n-octanol/water:	No data available
Vapour pressure: (at 25 °C)	<=0,04 hPa
Density:	No data available
Relative density (at 20 °C):	1,074
Relative vapour density:	No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No information available.

Sustaining combustion:	No data available

Self-ignition temperature

Solid:	No data available
Gas:	>=347 °F/ >=175 °C

Oxidizing properties

No information available.

Other safety characteristics

Evaporation rate:	No data available
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
Viscosity / dynamic: (at 45 °C)	7-9 mPa·s

Further Information

Volatile organic compounds (VOC) content in percent by weight: 0,03 g/l ~0% (calculated)

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

extreme temperatures
contamination

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Reference to other sections: 5

Further information

No data available

SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

The product has not been tested.

Acute toxicity

Based on available data, the classification criteria are not met.
ATEmix: 17900 mg/kg

ATEmix calculated

ATE (oral) > 5000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate				
	oral	LD50 3530 mg/kg	Rat	Study report (1987)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Publication (1984)	OECD Guideline 402
86273-46-3	2-(2-Vinyloxyethoxy)ethyl acrylate				
	oral	LD50 1790 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg	Rat		
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1989)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2011)	OECD Guideline 402
10287-53-3	Ethyl 4-dimethylaminobenzoate				
	oral	LD50 >5000 mg/kg	Rat	Pre-supplier/manufacturer	
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1996)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1996)	OECD Guideline 402
13048-33-4	hexamethylene diacrylate, hexane-1,6-diol diacrylate				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1979)	OECD Guideline 401
	dermal	LD50 3650 mg/kg	Rabbit	Study report (1972)	OECD Guideline 402
128-37-0	2,6-di-tert-butyl-p-cresol				
	oral	LD50 > 6000 mg/kg	Rat	Study report (1989)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1988)	OECD Guideline 402
112-02-7	Cetrimonium chloride				
	oral	LD50 861 mg/kg	Rat	Pre-supplier/manufacturer	
	dermal	LD50 528 mg/kg	Rabbit	Pre-supplier/manufacturer	

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (Oxybis(methyl-2,1-ethanediyl) diacrylate; 2-(2-Vinyloxyethoxy)ethyl acrylate; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide; hexamethylene diacrylate, hexane-1,6-diol diacrylate)

Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility. Suspected of damaging the unborn child. (diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: 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.

Practical experience

oral: Ingestion may cause irritation and nausea.
Dermal: Causes moderate skin irritation with prolonged exposure.
inhalation: Inhalation is the main route of exposure. In high concentrations, vapours, mist or fumes may cause irritation of the mucous membranes of the nose, throat and mouth.

11.2. Information on other hazards

Endocrine disrupting properties

Endocrine disrupting properties: 2,6-di-tert-butyl-p-cresol.

Other information

The yellow pigment in this product is embedded in a matrix that minimises the likelihood of exposure to the pigment.

Further information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate						
	Acute fish toxicity	LC50	2,15 - 4,64 mg/l	96 h	Leuciscus idus	Study report (1989)	other: German industrial standard test g
	Acute algae toxicity	ErC50	16,7 mg/l	72 h	Desmodesmus subspicatus	Study report (1990)	other: DIN 38412, part 9
	Acute crustacea toxicity	EC50	22,3 mg/l	48 h	Daphnia magna	Study report (1988)	EU Method C.2
	Acute bacteria toxicity	EC50	> 1000 mg/l ( )	0,5 h	activated sludge, domestic	Study report (2002)	OECD Guideline 209
86273-46-3	2-(2-Vinyloxyethoxy)ethyl acrylate						
	Acute fish toxicity	LC50	6,8 mg/l	96 h	Danio rerio (zebrafish)		
	Acute algae toxicity	ErC50	10 mg/l	72 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50	55 mg/l	48 h	Daphnia magna (Big water flea)		
	Fish toxicity	NOEC	2,2 mg/l	4 d			
	Algae toxicity	NOEC	0,78 mg/l	3 d			
	Crustacea toxicity	NOEC	25 mg/l	2 d			
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide						
	Acute fish toxicity	LC50	1,4 mg/l	96 h	Cyprinus carpio	REACh Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50	> 2,01 mg/l	72 h	Raphidocelis subcapitata	REACh Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	3,53 mg/l	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide						
	Acute fish toxicity	LC50	> 0,09 mg/l	96 h	Danio rerio	Study report (1997)	OECD Guideline 203
	Acute algae toxicity	ErC50	> 0,26 mg/l	72 h	Desmodesmus subspicatus	Study report (1997)	OECD Guideline 201
	Acute crustacea toxicity	EC50	> 1,175 mg/l	48 h	Daphnia magna	Study report (1997)	OECD Guideline 202
	Crustacea toxicity	NOEC	>= 0,0081 mg/l	21 d	Daphnia magna	Study report (2003)	OECD Guideline 211
	Acute bacteria toxicity	EC50	> 100 mg/l ( )	3 h	activated sludge, domestic	Study report (1997)	OECD Guideline 209
13048-33-4	hexamethylene diacrylate, hexane-1,6-diol diacrylate						
	Acute fish toxicity	LC50	0,38 mg/l	96 h	Oryzias latipes	Study report (1999)	OECD Guideline 203
	Acute algae toxicity	ErC50	1,09 mg/l	72 h	Selenastrum capricornutum	Study report (1999)	OECD Guideline 201
	Acute crustacea toxicity	EC50	2,7 mg/l	48 h	Daphnia pulex (water flea)		
	Fish toxicity	NOEC	0,072 mg/l	39 d	Oryzias latipes	Study report (2003)	OECD Guideline 210
	Algae toxicity	NOEC	0,9 mg/l				

	Crustacea toxicity	NOEC	0,14 mg/l	21 d	Daphnia magna	Study report (1999)	OECD Guideline 211
	Acute bacteria toxicity	EC50	ca. 270 mg/l ( )	0,5 h	Activated sludge	Study report (1998)	OECD Guideline 209
128-37-0	2,6-di-tert-butyl-p-cresol						
	Acute fish toxicity	LC50	0,199 mg/l	96 h	Oryzias latipes	REACh Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50	0,758 mg/l	96 h	Raphidocelis subcapitata	REACh Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	0,48 mg/l	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202
	Fish toxicity	NOEC	0,053 mg/l	30 d	Oryzias latipes	REACh Registration Dossier	OECD Guideline 210
	Crustacea toxicity	NOEC	0,069 mg/l	21 d	Daphnia magna	REACh Registration Dossier	OECD Guideline 211
	Acute bacteria toxicity	EC50	> 10000 mg/l ( )	3 h	Activated sludge	Study report (2000)	OECD Guideline 209

12.2. Persistence and degradability

No further relevant information available.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate			
	OECD 301 E	100%	28	
86273-46-3	2-(2-Vinyloxyethoxy)ethyl acrylate			
		>84,4%	28	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			
	OECD 301F	0-10%	28	
	Not readily biodegradable (according to OECD criteria)			
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			
	OECD 301B	1%	28	
	Poorly biodegradable.			
13048-33-4	hexamethylene diacrylate, hexane-1,6-diol diacrylate			
		>70%	28	
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

No further relevant information available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate	0,01 - 0,39
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	3,1
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	5,8
13048-33-4	hexamethylene diacrylate, hexane-1,6-diol diacrylate	2,81
128-37-0	2,6-di-tert-butyl-p-cresol	5,03

BCF

CAS No	Chemical name	BCF	Species	Source
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	47 - 55	Cyprinus carpio	REACh Registration D
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl) -phosphine oxide	< 5	Cyprinus carpio	Study report (1997)
128-37-0	2,6-di-tert-butyl-p-cresol	465	fish	REACh Registration D

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 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

Germany: water hazard class 3

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
Hazardous waste according to Directive 2008/98/EC (waste framework directive).
HP 4, 10, 13, 14

List of Wastes Code - residues/unused products

080312 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of printing inks; waste ink containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Dispose of waste according to applicable legislation.
Completely emptied packages can be recycled.

Don't store containers without labelling.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 2-Isopropyl-9H-thioxanthen-9-on)

14.3. Transport hazard class(es): 9

14.4. Packing group:	III
Hazard label:	9
Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 2-Isopropyl-9H-thioxanthen-9-on)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 2-Isopropyl-9H-thioxanthen-9-on)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
Marine pollutant:	p
Special Provisions:	274 335 969
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 2-Isopropyl-9H-thioxanthen-9-on)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
Special Provisions:	A97 A158 A197 A215
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y964
Excepted quantity:	E1
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	Yes

Danger releasing substance: diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 2-Isopropyl-9H-thioxanthen-9-on

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

Other applicable information

No information available.

Hazchem code: •3Z

SECTION 15: Regulatory information

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

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Classification according to Regulation (EC) No 1272/2008 [CLP]
COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
DIRECTIVE (EU) 2018/851 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCILof 30 May 2018amending Directive 2008/98/EC on waste
DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives
Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Council Directive 92/85/EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding (tenth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)
REGULATION (EC) No 166/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles 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.

Water hazard class (D): 3 - highly hazardous to water

Additional information

Germany:
Ordinance on systems for handling water-polluting substances (AwSV)
Hazardous Substances Ordinance (GefStoffV)
Dangerous Goods Officer Ordinance (GbV)
Dangerous Goods Ordinance for Road, Rail and Inland Navigation (GGVSEB)

TRGS 201, TRGS 220, TRGS 400ff., TRGS 500, TRGS 509, TRGS 510, TRGS 555, TRGS 900

Training advice: training of employees

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
Oxybis(methyl-2,1-ethanediyl) diacrylate
2-(2-Vinyloxyethoxy)ethyl acrylate
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Ethyl 4-dimethylaminobenzoate
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
hexamethylene diacrylate, hexane-1,6-diol diacrylate
2,6-di-tert-butyl-p-cresol

SECTION 16: Other information

Abbreviations and acronyms

Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation
Repr: Reproductive toxicity
STOT SE: Specific target organ toxicity - single exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard
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 conernat le transport des marchandises dangereuses par chemin de fer
(Regulations Concerning the International Transport of Dangerous Goods by Rail)
ATE mix: Acute toxicity estimate of the mixture
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Refulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures
CMR: carcinogenicity, mutagenicity and toxicity for reproduction
EC50: Effectice concentration, 50 percent
DNEL: Derived No Effect Level
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOEL: No Observed Effect Level
PNEC: Predicted No Effect Concentration
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
VOC: Volatile Organic Compound
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

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

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Repr. 1B; H360Fd	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
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.
H335	May cause respiratory irritation.
H360F	May damage fertility.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)