ECO-UV, EUV5-2CY
ECO-UV, EUV5-5CY
ECO-UV, EUV5P-7CY

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 10/30/2024 Version: 4.0

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

1.1. Product identifier

Product form : Mixture
Trade name : ECO-UV, EUV5-2CY
ECO-UV, EUV5-5CY
ECO-UV, EUV5P-7CY
UFI : 3ESE-HWNA-HDK1-47NA

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

Relevant identified uses

Main use category : Professional use
Function or use category : Inkjet Printing ink

1.3. Details of the supplier of the safety data sheet

Manufacturer
Roland DG Corporation
1-1-2 Shinmiyakoda, Hamana-ku,
Hamamatsu-shi,Shizuoka-ken, 431-2103 Japan
〒431-2103
T +81-53-484-1200

Supplier
Roland DG EMEA N.V.
Bell Telephonelaan 2G, 2440 Geel, Belgium
T +32 (0) 14 57 59 11
deu-demand-planning@rolanddg.com

1.4. Emergency telephone number

Country/Area	Organisation/Company	Emergency number	Comment
Ireland	Poisons Information Centre of Ireland	+353 18 37 99 64 (medical professionals) +353 18 09 21 66 (public)	
Malta	Malta Competition and Consumer Affairs Authority (MCCAA)	+356 2395 2000 1774 helpline for accidental poisoning	
United Kingdom	Emergency number England	999 NHS 111	or call a doctor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317

Reproductive toxicity, Category 2	H361
Specific target organ toxicity – Repeated exposure, Category 2	H373
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

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

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Harmful in contact with skin. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05 GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Contains : 2-Propenoic acid, phenylmethyl ester; 2-Propenoic acid, 1,6-hexanediyl ester; 2-Propenoic acid, 2-phenoxyethyl ester; 2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester; 2-Propenamide, N,N-dimethyl-; 2-Propen-1-one, 1-(4-morpholinyl)-; Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide; Phenol, 4-methoxy-

Hazard statements (CLP) : H302+H312 - Harmful if swallowed or in contact with skin.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing should not be allowed out of the workplace.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Propenoic acid, phenylmethyl ester	CAS-No.: 2495-35-4 EC-No.: 219-673-9 REACH-no: 01-2120772339-44	20 – 30	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 1, H410
2-Propenoic acid, 1,6-hexanediyl ester	CAS-No.: 13048-33-4 EC-No.: 235-921-9 EC Index-No.: 607-109-00-8 REACH-no: 01-2119484737-22	20 – 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
2-Propen-1-one, 1-(4-morpholinyl)-	CAS-No.: 5117-12-4 EC-No.: 418-140-1 EC Index-No.: 613-222-00-3 REACH-no: 01-2120102080-83	10 – 20	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 2, H373 Eye Dam. 1, H318 Skin Sens. 1, H317
2-Propenoic acid, 2-phenoxyethyl ester	CAS-No.: 48145-04-6 EC-No.: 256-360-6 REACH-no: 01-2119980532-35	5 – 10	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester	CAS-No.: 7328-17-8 EC-No.: 230-811-7 REACH-no: 01-2120752384-53	5 – 10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=400 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
2-Propenamide, N,N-dimethyl-	CAS-No.: 2680-03-7 REACH-no: 01-2119971262-39	5 – 10	Acute Tox. 3 (Oral), H301 (ATE=215 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Eye Dam. 1, H318
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	CAS-No.: 162881-26-7 EC-No.: 423-340-5 EC Index-No.: 015-189-00-5	5 – 10	Skin Sens. 1A, H317 Aquatic Chronic 4, H413
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate	CAS-No.: 84434-11-7 EC-No.: 282-810-6 REACH-no: 01-2119987994-10	1 – 5	Skin Sens. 1, H317 Aquatic Chronic 2, H411

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)-	CAS-No.: 147-14-8 EC-No.: 205-685-1	1 – 5	Not classified
Phenol, 4-methoxy-	CAS-No.: 150-76-5 EC-No.: 205-769-8 EC Index-No.: 604-044-00-7	0 – 1	Acute Tox. 4 (Oral), H302 (ATE=1600 mg/kg bodyweight) Eye Irrit. 2, H319 Skin Sens. 1, H317

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.

First-aid measures for first aider : First aid workers will be equipped with suitable personal protective equipment.

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

Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : None under normal conditions.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions	:	Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Stop leak if safe to do so. Absorb spillage to prevent material damage.

For non-emergency personnel

Protective equipment	:	Wear recommended personal protective equipment.
Emergency procedures	:	Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothing.

For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	:	Take up liquid spill into absorbent material.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.
Hygiene measures	:	Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Keep in a cool, well-ventilated place away from heat.

Storage conditions : Store locked up.
Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

Inkjet Printing ink.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL and PNEC

2-Propenoic acid, 1,6-hexanediyl ester (13048-33-4)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	2.77 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	24.5 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	2.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.2 mg/m³
Long-term - systemic effects, dermal	1.66 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.00723 mg/l
PNEC aqua (marine water)	0.000723 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.493 mg/kg dwt
PNEC sediment (marine water)	0.0493 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.094 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	2.7 mg/l

2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	3.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	12 mg/m³
Long-term - local effects, inhalation	77 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	2 µg/l

2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)	
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.02 mg/kg dwt
PNEC sediment (marine water)	0.002 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.006 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1.77 mg/l

2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester (7328-17-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.083 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.6 mg/m³
Long-term - local effects, inhalation	77 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	3.2 µg/l
PNEC aqua (marine water)	0.32 µg/l
PNEC aqua (intermittent, freshwater)	32 µg/l
PNEC aqua (intermittent, marine water)	10 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.0037 mg/kg dwt
PNEC sediment (marine water)	0.00037 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.00157 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	7.7 mg/l

2-Propenamide, N,N-dimethyl- (2680-03-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	357 µg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.207 mg/m³

2-Propenamide, N,N-dimethyl- (2680-03-7)	
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	14.7 µg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.0512 mg/m³
Long-term - systemic effects, dermal	179 µg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.12 mg/l
PNEC aqua (marine water)	0.012 mg/l
PNEC aqua (intermittent, freshwater)	1.2 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.509 mg/kg dwt
PNEC sediment (marine water)	0.0509 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.0313 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	18 mg/l

Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (84434-11-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.93 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.87 mg/m³
Long-term - systemic effects, dermal	0.5 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	1.01 µg/l
PNEC aqua (marine water)	0.101 µg/l
PNEC aqua (intermittent, freshwater)	10.1 µg/l
PNEC aqua (intermittent, marine water)	1.01 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.24 mg/kg dwt
PNEC sediment (marine water)	24 µg/kg dw

Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (84434-11-7)	
PNEC (Soil)	
PNEC soil	47.5 µg/kg dw

Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)- (147-14-8)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	10 mg/m³
Long-term - local effects, inhalation	10 mg/m³

Phenol, 4-methoxy- (150-76-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	3 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.0136 mg/l
PNEC aqua (marine water)	0.00136 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.125 mg/kg dwt
PNEC sediment (marine water)	0.0125 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.017 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Eye and face protection

Eye protection:
Not required under suitable use as setting the ink on the printer. However, in case of direct contact to the ink, wear EN166 approved safety glasses or chemical splash goggles.

Skin protection

Skin and body protection:
Not required under suitable use as setting the ink on the printer. However, in case of direct contact to the ink, wear protective clothing.

Hand protection:

Employee must wear appropriate protective impervious gloves to prevent contact with the ink. Recommended Chemical Protective Gloves are EN420/374 approved ethylene vinyl alcohol (EVOH) Gloves and Laminate gloves. Laminate gloves are made by cutting and then heat-sealing patterns of various hand sizes from laminated sheets of EVOH sealed between layers of polyethylene.

Respiratory protection

Respiratory protection:

In case of inadequate ventilation and exposure limits are exceeded or if irritation or other symptoms are experienced, use a NIOSH/MSHA or European Standard EN149 approved respirator (with activated carbon layer for organic vapour).

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Wash hands immediately after handling the product.And wash it before reuse.Do not eat, drink or smoke during work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Cyan.
Appearance	:	Liquid.
Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	No data available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	> 94 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Soluble in water with difficulty.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	1 – 1.1
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

Other safety characteristics

SAPT	:	> 50 °C
VOC content	:	0.047 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide, oxides of nitrogen, toxic gases/vapors.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Harmful in contact with skin.
Acute toxicity (inhalation)	:	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	:	Causes skin irritation. pH: Not available
Serious eye damage/irritation	:	Causes serious eye damage. pH: Not available
Respiratory or skin sensitisation	:	May cause an allergic skin reaction.
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	IARC evaluated printing ink as a Group3(Not classifiable as to carcinogenicity to humans).
Reproductive toxicity	:	Suspected of damaging fertility or the unborn child.
STOT-single exposure	:	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	:	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	:	Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met).
Hazardous to the aquatic environment, long–term (chronic) : Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

ECO-UV, EUV5-2CY ECO-UV, EUV5-5CY ECO-UV, EUV5P-7CY	
Persistence and degradability	No data available.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.
European List of Waste (LoW, EC 2000/532) : 08 03 12* - waste ink containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.				
14.1. UN number or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-A EmS-No. (Spillage): S-F	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6
Special provisions (ADR) : 274, 335, 375, 601
Limited quantities (ADR) : 5l

Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1, TP29
Tank code (ADR)	:	LGBV
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13
Hazard identification number (Kemler No.)	:	90
Orange plates	:	
Tunnel restriction code (ADR)	:	-
EAC code	:	•3Z

Transport by sea

Special provisions (IMDG)	:	274, 335, 969
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	LP01, P001
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1, TP29
Stowage category (IMDG)	:	A

Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y964
PCA limited quantity max net quantity (IATA)	:	30kgG
PCA packing instructions (IATA)	:	964
PCA max net quantity (IATA)	:	450L
CAO packing instructions (IATA)	:	964
CAO max net quantity (IATA)	:	450L
Special provisions (IATA)	:	A97, A158, A197, A215
ERG code (IATA)	:	9L

Inland waterway transport

Classification code (ADN)	:	M6
Special provisions (ADN)	:	274, 335, 375, 601
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	M6
Special provisions (RID)	:	274, 335, 375, 601
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Special packing provisions (RID)	:	PP1
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1, TP29
Tank codes for RID tanks (RID)	:	LGBV
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW13, CW31
Colis express (express parcels) (RID)	:	CE8
Hazard identification number (RID)	:	90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

VOC Directive (2004/42)

VOC content	:	0.047 g/l

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
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.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

RDG Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.