

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 11/27/2024 Version: 7.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Trade name : ECO-UV, EUV-MG Ver.2
UFI : R8QE-VWDD-UDKN-KQ2Q

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 (inhalation:dust,mist) Category 4 H332
Skin corrosion/irritation, Category 1, Sub-Category 1C H314
Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Germ cell mutagenicity, Category 2 H341
Reproductive toxicity, Category 1B H360
Specific target organ toxicity – Repeated exposure, Category 1 H372

Safety Data Sheet

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

Hazardous to the aquatic environment – Chronic Hazard, H410

Category 1

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

Adverse physicochemical, human health and environmental effects

Suspected of causing genetic defects. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Harmful if swallowed. Causes severe skin burns and eye damage. 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, 2-methoxyethyl ester; 2-Propenoic acid, 1,6-hexanediyl ester; N-VINYL CAPROLACTAM; 2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel-; Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

Hazard statements (CLP)

: H302+H332 - Harmful if swallowed or if inhaled.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H341 - Suspected of causing genetic defects.
H360 - May damage fertility or the unborn child.
H372 - Causes 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.
P271 - Use only outdoors or in a well-ventilated area.

Extra phrases

: Restricted to professional users.
For professional users only.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ 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 %

Safety Data Sheet

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

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, 2-methoxyethyl ester	CAS-No.: 3121-61-7 EC-No.: 221-499-3 EC Index-No.: 607-744-00-0 REACH-no: 01-2119962915-25	20 – 24	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=401 mg/kg bodyweight) Acute Tox. 3 (Inhalation), H331 (ATE=2.7 mg/l/4h) Acute Tox. 3 (Inhalation:vapour), H331 (ATE=2.7 mg/l/4h) Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Repr. 1B, H360FD EUH071
N-VINYL CAPROLACTAM	CAS-No.: 2235-00-9 EC-No.: 218-787-6 REACH-no: 01-2119977109-27	10 – 20	Acute Tox. 4 (Oral), H302 (ATE=1114 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1700 mg/kg bodyweight) Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 1, H372
2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel-	CAS-No.: 5888-33-5 EC-No.: 227-561-6 EC Index-No.: 607-756-00-6 REACH-no: 01-2119957862-25	10 – 20	Skin Sens. 1A, H317
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- substance listed as REACH Candidate	CAS-No.: 75980-60-8 EC-No.: 278-355-8 EC Index-No.: 015-203-00-X REACH-no: 01-2119972295-29	5 – 15	Skin Sens. 1, H317 Repr. 1B, H360
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	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Additives	-	1 – 5	Not classified

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

Safety Data Sheet

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

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
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. Do not induce vomiting. Call a physician immediately.
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	: Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.
Chronic symptoms	: May damage fertility or the unborn child.

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.
----------------------	---

Safety Data Sheet

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

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray.

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 : 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. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Separate working clothes from town clothes. Launder separately. 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.

Safety Data Sheet

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL and PNEC

2-Propenoic acid, 2-methoxyethyl ester (3121-61-7)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	0.042 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.12 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	0.017 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.029 mg/m ³
Long-term - systemic effects, dermal	0.021 mg/kg bodyweight/day

PNEC (Water)

PNEC aqua (freshwater)	0.0019 mg/l
PNEC aqua (marine water)	0.00019 mg/l
PNEC aqua (intermittent, freshwater)	0.045 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	0.0104 mg/kg dwt
PNEC sediment (marine water)	0.001 mg/kg dwt

PNEC (Soil)

PNEC soil	0.0049 mg/kg dwt
-----------	------------------

PNEC (STP)

PNEC sewage treatment plant	10 mg/l
-----------------------------	---------

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/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	2.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.2 mg/m ³
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

Safety Data Sheet

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

2-Propenoic acid, 1,6-hexanediyl ester (13048-33-4)	
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
N-VINYL CAPROLACTAM (2235-00-9)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.9 mg/m ³
Long-term - local effects, inhalation	0.17 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.04 mg/m ³
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.04 mg/m ³
2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel- (5888-33-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1.39 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.9 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.45 mg/m ³
Long-term - systemic effects, dermal	0.83 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.00092 mg/l
PNEC aqua (marine water)	0.000092 mg/l
PNEC aqua (intermittent, freshwater)	0.00704 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.145 mg/kg dwt
PNEC sediment (marine water)	0.0145 mg/kg dwt

Safety Data Sheet

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

2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel- (5888-33-5)	
PNEC (Soil)	
PNEC soil	0.0285 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	2 mg/l
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- (75980-60-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.233 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.822 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	83.3 µg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.145 mg/m ³
Long-term - systemic effects, dermal	83.3 µg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	1.4 µg/l
PNEC aqua (marine water)	0.14 µg/l
PNEC aqua (intermittent, freshwater)	14 µg/l
PNEC aqua (intermittent, marine water)	1.4 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.115 mg/kg dwt
PNEC sediment (marine water)	11.5 µg/kg dw
PNEC (Soil)	
PNEC soil	22.2 µg/kg dw

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.

Safety Data Sheet

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

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	: Magenta.
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	: > 70 °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	: Not available
Relative density	: 0.9 – 1.1
Relative vapour density at 20°C	: > 1
Particle characteristics	: Not applicable

9.2. Other information**Other safety characteristics**

SAPT	: > 50 °C
VOC content	: 16 g/l

Safety Data Sheet

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

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) : Not classified (Based on available data, the classification criteria are not met).
 Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

2-Propenoic acid, 2-methoxyethyl ester

LD50 oral rat	404 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 343,4 - 464,6
LD50 dermal	252.5 mg/kg

N-VINYL CAPROLACTAM

LD50 oral rat	1114 mg/kg Source: ECHA
LD50 dermal rabbit	1700 mg/kg Source: ECHA

Skin corrosion/irritation : Causes severe skin burns.
 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 : Suspected of causing genetic defects.
 Carcinogenicity : IARC evaluated printing ink as a Group3(Not classifiable as to carcinogenicity to humans).
 Reproductive toxicity : May damage fertility or the unborn child.
 STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
 STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.
 Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Safety Data Sheet

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

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, EUV-MG Ver.2

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

Safety Data Sheet

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1760	UN 1760	UN 1760	UN 1760	UN 1760
14.2. UN proper shipping name				
CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S. (2-Methoxy acrylate)	Corrosive liquid, n.o.s. (2-Methoxy acrylate)	CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.
Transport document description				
UN 1760 CORROSIVE LIQUID, N.O.S., 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 1760 CORROSIVE LIQUID, N.O.S. (2-Methoxy acrylate), 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1760 Corrosive liquid, n.o.s. (2-Methoxy acrylate), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 1760 CORROSIVE LIQUID, N.O.S., 8, III, ENVIRONMENTALLY HAZARDOUS	UN 1760 CORROSIVE LIQUID, N.O.S., 8, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
8	8	8	8	8
				
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-B	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)	: C9
Special provisions (ADR)	: 274
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP1, TP28
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Hazard identification number (Kemler No.)	: 80

Safety Data Sheet

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

 Orange plates : 

 Tunnel restriction code (ADR) : E
 EAC code : 2X

Transport by sea

 Special provisions (IMDG) : 223, 274
 Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E1
 Packing instructions (IMDG) : P001, LP01
 IBC packing instructions (IMDG) : IBC03
 Tank instructions (IMDG) : T7
 Tank special provisions (IMDG) : TP1, TP28
 Stowage category (IMDG) : A
 Stowage and handling (IMDG) : SW2
 Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

 PCA Excepted quantities (IATA) : E1
 PCA Limited quantities (IATA) : Y841
 PCA limited quantity max net quantity (IATA) : 1L
 PCA packing instructions (IATA) : 852
 PCA max net quantity (IATA) : 5L
 CAO packing instructions (IATA) : 856
 CAO max net quantity (IATA) : 60L
 Special provisions (IATA) : A3, A803
 ERG code (IATA) : 8L

Inland waterway transport

 Classification code (ADN) : C9
 Special provisions (ADN) : 274
 Limited quantities (ADN) : 5 L
 Excepted quantities (ADN) : E1
 Carriage permitted (ADN) : T
 Equipment required (ADN) : PP, EP
 Number of blue cones/lights (ADN) : 0

Rail transport

 Classification code (RID) : C9
 Special provisions (RID) : 274
 Limited quantities (RID) : 5L
 Excepted quantities (RID) : E1
 Packing instructions (RID) : P001, IBC03, LP01, R001
 Mixed packing provisions (RID) : MP19
 Portable tank and bulk container instructions (RID) : T7
 Portable tank and bulk container special provisions (RID) : TP1, TP28
 Tank codes for RID tanks (RID) : L4BN
 Transport category (RID) : 3
 Special provisions for carriage – Packages (RID) : W12
 Colis express (express parcels) (RID) : CE8

Safety Data Sheet

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

Hazard identification number (RID) : 80

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 substance(s) listed on the REACH Candidate List in concentrations $\geq 0.1\%$ or SCL: Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- (EC 278-355-8, CAS 75980-60-8)**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 : 16 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

Safety Data Sheet

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

Abbreviations and acronyms:	
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
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

Safety Data Sheet

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

Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
EUH071	Corrosive to the respiratory tract.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful 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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H360	May damage fertility or the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1

Safety Data Sheet

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

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.