

## Safety Data Sheet

Issue date: 1/17/2025 Version: 1.0

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

Product form : Mixture  
Trade name : EUV-A7CY  
UFI : M1WE-4WKC-6DKU-2G9V

**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

**1.4. Emergency telephone number**

No additional information available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GHS classification**

Health hazards	Acute toxicity (oral)	Category 4
	Acute toxicity (dermal)	Category 5
	Acute toxicity (inhalation:dust/mist)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitization	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity (repeated exposure)	Category 1
Environmental hazards	Hazardous to the aquatic environment, long-term (chronic)	Category 2

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. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

## Safety Data Sheet

### 2.2. Label elements

#### Label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Harmful if swallowed or if inhaled (H302+H332)  
May be harmful in contact with skin (H313)  
Causes skin irritation. (H315)  
May cause an allergic skin reaction. (H317)  
Causes serious eye irritation. (H319)  
Suspected of damaging fertility or the unborn child. (H361)  
Causes damage to organs through prolonged or repeated exposure. (H372)  
Toxic to aquatic life with long lasting effects. (H411)

##### Precautionary statements

##### Prevention

: Obtain special instructions before use. (P201)  
Do not handle until all safety precautions have been read and understood. (P202)  
Do not breathe dust/fume/gas/mist/vapours/spray. (P260)  
Wash hands, forearms and face thoroughly after handling. (P264)  
Do not eat, drink or smoke when using this product. (P270)  
Use only outdoors or in a well-ventilated area. (P271)  
Contaminated work clothing should not be allowed out of the workplace. (P272)  
Avoid release to the environment. (P273)

##### Response

Wear protective gloves/protective clothing/eye protection/face protection. (P280)  
: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)  
IF ON SKIN: Wash with plenty of water. (P302+P352)  
IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
IF exposed or concerned: Get medical advice/attention. (P308+P313)  
Call a POISON CENTER or doctor if you feel unwell. (P312)  
Get medical advice/attention if you feel unwell. (P314)  
Specific treatment (see supplemental first aid instruction on this label). (P321)  
Rinse mouth. (P330)  
If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
If eye irritation persists: Get medical advice/attention. (P337+P313)  
Take off contaminated clothing and wash it before reuse. (P362+P364)  
Collect spillage. (P391)

##### Storage

: Store locked up. (P405)

##### Disposal

: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

### 2.3. Other hazards

No additional information available

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**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Propenoic acid, 2-phenoxyethyl ester	CAS-No.: 48145-04-6 EC-No.: 256-360-6 REACH-no: 01-2119980532-35	10 – 30	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
(2-ethyl-2-methyl-1,3-dioxolan-4-yl)methyl acrylate	CAS-No.: 69701-99-1	10 – 30	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	CAS-No.: 66492-51-1 EC-No.: 266-380-7	10 – 30	Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 2, H411
N-VINYL CAPROLACTAM	CAS-No.: 2235-00-9 EC-No.: 218-787-6 REACH-no: 01-2119977109-27	10 – 30	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
Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]-	CAS-No.: 26570-48-9	5 – 10	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
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	1 – 5	Skin Sens. 1A, H317 Aquatic Chronic 4, H413
Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated]	CAS-No.: 56641-05-5 EC-No.: 500-133-9	1 – 5	Skin Sens. 1, H317 Aquatic Chronic 2, H411
2-isopropyl-9H-thioxanthen-9-one	CAS-No.: 5495-84-1	1 – 5	Repr. 2, H361 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Propylidynetrimethanol, ethoxylated, esters with acrylic acid [1 - 6.5 moles ethoxylated]	CAS-No.: 28961-43-5 EC-No.: 500-066-5	1 – 5	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
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
Glycerol, propoxylated, esters with acrylic acid	CAS-No.: 52408-84-1	< 1	Eye Irrit. 2, H319 Skin Sens. 1, H317

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester	CAS-No.: 15625-89-5 EC-No.: 239-701-3 EC Index-No.: 607-111-00-9	< 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
ISOPROPYLIDENEDIPHENYL BISOXYHYDROXYPROPYL ACRYLATE	CAS-No.: 55818-57-0 EC-No.: 500-130-2	< 1	Skin Sens. 1, H317 Aquatic Chronic 2, H411

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. Call a poison center or a doctor if you feel unwell.
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. If eye irritation persists: Get medical advice/attention.
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	: Eye irritation.
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.

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**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.
<b>For non-emergency personnel</b>	
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 and eyes.
<b>For emergency responders</b>	
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	: 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.

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## 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, 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/m <sup>3</sup>
Long-term - local effects, inhalation	77 mg/m <sup>3</sup>

## PNEC (Water)

PNEC aqua (freshwater)	2 µg/l
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
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## PNEC (STP)

PNEC sewage treatment plant	1.77 mg/l
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## (5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1)

## PNEC (Water)

PNEC aqua (freshwater)	0.004 mg/l
PNEC aqua (marine water)	0.0004 mg/l
PNEC aqua (intermittent, freshwater)	0.04 mg/l

## PNEC (Sediment)

PNEC sediment (freshwater)	0.019 mg/kg dwt
PNEC sediment (marine water)	0.0019 mg/kg dwt

## PNEC (Soil)

PNEC soil	0.0014 mg/kg dwt
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## PNEC (STP)

PNEC sewage treatment plant	30 mg/l
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<b>Glycerol, propoxylated, esters with acrylic acid (52408-84-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.4 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.00574 mg/l
PNEC aqua (marine water)	0.000574 mg/l
PNEC aqua (intermittent, freshwater)	0.0574 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.078 mg/kg dwt
PNEC sediment (marine water)	0.0078 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0122 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l
<b>2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	404 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	17.1 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.87 µg/l
PNEC aqua (marine water)	0.087 µg/l
PNEC aqua (intermittent, freshwater)	8.7 µg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.017 mg/kg dwt
PNEC sediment (marine water)	0.0017 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0029 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	10 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	6.25 mg/l

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<b>N-VINYL CAPROLACTAM (2235-00-9)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.9 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.17 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.04 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.04 mg/m <sup>3</sup>
<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.5 mg/m <sup>3</sup>
Long-term - local effects, inhalation	97 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.0528 mg/kg dwt
PNEC sediment (marine water)	0.00528 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.009 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>2-isopropyl-9H-thioxanthen-9-one (5495-84-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.92 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.06 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.36 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	1.04 mg/kg bodyweight/day



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**2-isopropyl-9H-thioxanthen-9-one (5495-84-1)**
**PNEC (Water)**

PNEC aqua (freshwater)	0.000125 mg/l
PNEC aqua (marine water)	0.0000125 mg/l
PNEC aqua (intermittent, freshwater)	0.00125 mg/l
PNEC aqua (intermittent, marine water)	0.000125 mg/l

**PNEC (Sediment)**

PNEC sediment (freshwater)	0.121 mg/kg dwt
PNEC sediment (marine water)	0.0121 mg/kg dwt

**PNEC (Soil)**

PNEC soil	0.0241 mg/kg dwt
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**PNEC (Oral)**

PNEC oral (secondary poisoning)	0.333 mg/kg food
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**PNEC (STP)**

PNEC sewage treatment plant	100 mg/l
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**Propylidynetrimehanol, ethoxylated, esters with acrylic acid [1 - 6.5 moles ethoxylated] (28961-43-5)**
**DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	10.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	37 mg/m <sup>3</sup>

**PNEC (Water)**

PNEC aqua (freshwater)	0.00195 mg/l
PNEC aqua (marine water)	0.000195 mg/l
PNEC aqua (intermittent, freshwater)	0.0195 mg/l
PNEC aqua (intermittent, marine water)	0.00195 mg/l

**PNEC (Sediment)**

PNEC sediment (freshwater)	0.038 mg/kg dwt
PNEC sediment (marine water)	0.0038 mg/kg dwt

**PNEC (Soil)**

PNEC soil	0.00644 mg/kg dwt
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**PNEC (STP)**

PNEC sewage treatment plant	10 mg/l
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**ISOPROPYLIDENEDIPHENYL BISOXHYDROXYPROPYL ACRYLATE (55818-57-0)**
**DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	33 mg/kg bodyweight/day
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<b>ISOPROPYLIDENEDIPHENYL BISOXYHYDROXYPROPYL ACRYLATE (55818-57-0)</b>	
Long-term - systemic effects, inhalation	1.17 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.025 mg/l
PNEC aqua (marine water)	0.0025 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	8.96 mg/kg dwt
PNEC sediment (marine water)	0.896 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	1.78 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l
<b>Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)- (147-14-8)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	10 mg/m <sup>3</sup>
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>

## 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).

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## 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

## 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.

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### 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.
Skin corrosion/irritation	: Causes skin irritation. pH: Not available
Serious eye damage/irritation	: Causes serious eye irritation. 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).

### 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)

IARC group	2B - Possibly carcinogenic 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	: Causes 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	: 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)	: Toxic to aquatic life with long lasting effects.

### 12.2. Persistence and degradability

### EUV-A7CY

Persistence and degradability	No data available.
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### 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.				
<b>14.1. UN number or ID number</b>				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
<b>14.2. UN proper shipping name</b>				
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.

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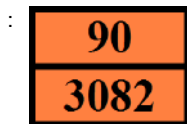
ADR	IMDG	IATA	ADN	RID
<b>Transport document description</b>				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III
<b>14.3. Transport hazard class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
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)	: 5I
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

## Safety Data Sheet

Orange plates



Tunnel restriction code (ADR)

: -

## 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

## Safety Data Sheet

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.

**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



**Safety Data Sheet**
**Abbreviations and acronyms:**

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

**Full text of H- and EUH-statements:**

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
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**Safety Data Sheet**

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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 Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
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 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
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.
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 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

RDG Safety Data Sheet (SDS), EU GHS Ver

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.

## Safety Data Sheet

Issue date: 1/17/2025 Version: 1.0

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

Product form : Mixture  
Trade name : EUV-A7MG  
UFI : Q3WE-NW8R-HDKA-QTVX

**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

**1.4. Emergency telephone number**

No additional information available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GHS classification**

Health hazards	Acute toxicity (oral)	Category 4
	Acute toxicity (dermal)	Category 5
	Acute toxicity (inhalation:dust/mist)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitization	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity (repeated exposure)	Category 1
Environmental hazards	Hazardous to the aquatic environment, long-term (chronic)	Category 2

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. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

## Safety Data Sheet

### 2.2. Label elements

#### Label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Harmful if swallowed or if inhaled (H302+H332)  
 May be harmful in contact with skin (H313)  
 Causes skin irritation. (H315)  
 May cause an allergic skin reaction. (H317)  
 Causes serious eye irritation. (H319)  
 Suspected of damaging fertility or the unborn child. (H361)  
 Causes damage to organs through prolonged or repeated exposure. (H372)  
 Toxic to aquatic life with long lasting effects. (H411)

##### Precautionary statements

##### Prevention

: Obtain special instructions before use. (P201)  
 Do not handle until all safety precautions have been read and understood. (P202)  
 Do not breathe dust/fume/gas/mist/vapours/spray. (P260)  
 Wash hands, forearms and face thoroughly after handling. (P264)  
 Do not eat, drink or smoke when using this product. (P270)  
 Use only outdoors or in a well-ventilated area. (P271)  
 Contaminated work clothing should not be allowed out of the workplace. (P272)  
 Avoid release to the environment. (P273)  
 Wear protective gloves/protective clothing/eye protection/face protection. (P280)

##### Response

: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)  
 IF ON SKIN: Wash with plenty of water. (P302+P352)  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340)  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
 IF exposed or concerned: Get medical advice/attention. (P308+P313)  
 Call a POISON CENTER or doctor if you feel unwell. (P312)  
 Get medical advice/attention if you feel unwell. (P314)  
 Specific treatment (see supplemental first aid instruction on this label). (P321)  
 Rinse mouth. (P330)  
 If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
 If eye irritation persists: Get medical advice/attention. (P337+P313)  
 Take off contaminated clothing and wash it before reuse. (P362+P364)  
 Collect spillage. (P391)

##### Storage

: Store locked up. (P405)

##### Disposal

: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

### 2.3. Other hazards

No additional information available

**Safety Data Sheet**
**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(2-ethyl-2-methyl-1,3-dioxolan-4-yl)methyl acrylate	CAS-No.: 69701-99-1	20 – 40	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
2-Propenoic acid, 2-phenoxyethyl ester	CAS-No.: 48145-04-6 EC-No.: 256-360-6 REACH-no: 01-2119980532-35	10 – 30	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
N-VINYL CAPROLACTAM	CAS-No.: 2235-00-9 EC-No.: 218-787-6 REACH-no: 01-2119977109-27	10 – 30	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
Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]-	CAS-No.: 26570-48-9	5 – 10	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
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	1 – 5	Skin Sens. 1A, H317 Aquatic Chronic 4, H413
Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated]	CAS-No.: 56641-05-5 EC-No.: 500-133-9	1 – 5	Skin Sens. 1, H317 Aquatic Chronic 2, H411
2-isopropyl-9H-thioxanthen-9-one	CAS-No.: 5495-84-1	1 – 5	Repr. 2, H361 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
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	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Colourants	-	1 – 5	Not classified
Glycerol, propoxylated, esters with acrylic acid	CAS-No.: 52408-84-1	< 1	Eye Irrit. 2, H319 Skin Sens. 1, H317
ISOPROPYLIDENEDIPHENYL BISOXYHYDROXYPROPYL ACRYLATE	CAS-No.: 55818-57-0 EC-No.: 500-130-2	< 1	Skin Sens. 1, H317 Aquatic Chronic 2, H411

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

## Safety Data Sheet

**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. Call a poison center or a doctor if you feel unwell.
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. If eye irritation persists: Get medical advice/attention.
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	: Eye irritation.
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.
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**For non-emergency personnel**

Protective equipment	: Wear recommended personal protective equipment.
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## Safety Data Sheet

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

**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 : 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, 2-phenoxyethyl ester (48145-04-6)****DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	3.5 mg/kg bodyweight/day
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**Safety Data Sheet**

<b>2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)</b>	
Long-term - systemic effects, inhalation	12 mg/m <sup>3</sup>
Long-term - local effects, inhalation	77 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.02 mg/kg dwt
PNEC sediment (marine water)	0.002 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.006 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>Glycerol, propoxylated, esters with acrylic acid (52408-84-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.4 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.00574 mg/l
PNEC aqua (marine water)	0.000574 mg/l
PNEC aqua (intermittent, freshwater)	0.0574 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.078 mg/kg dwt
PNEC sediment (marine water)	0.0078 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0122 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l
<b>N-VINYL CAPROLACTAM (2235-00-9)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.9 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.17 mg/m <sup>3</sup>



**Safety Data Sheet**

<b>N-VINYL CAPROLACTAM (2235-00-9)</b>	
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.04 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.04 mg/m <sup>3</sup>
<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.5 mg/m <sup>3</sup>
Long-term - local effects, inhalation	97 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.0528 mg/kg dwt
PNEC sediment (marine water)	0.00528 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.009 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>2-isopropyl-9H-thioxanthen-9-one (5495-84-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.92 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.06 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.36 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	1.04 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.000125 mg/l
PNEC aqua (marine water)	0.0000125 mg/l
PNEC aqua (intermittent, freshwater)	0.00125 mg/l

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<b>2-isopropyl-9H-thioxanthen-9-one (5495-84-1)</b>	
PNEC aqua (intermittent, marine water)	0.000125 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.121 mg/kg dwt
PNEC sediment (marine water)	0.0121 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0241 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.333 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	100 mg/l
<b>ISOPROPYLIDENEDIPHENYL BISOXHYDROXYPROPYL ACRYLATE (55818-57-0)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.17 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.025 mg/l
PNEC aqua (marine water)	0.0025 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	8.96 mg/kg dwt
PNEC sediment (marine water)	0.896 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	1.78 mg/kg dwt
<b>PNEC (STP)</b>	
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.

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**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.
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
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**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.
Skin corrosion/irritation	: Causes skin irritation. pH: Not available
Serious eye damage/irritation	: Causes serious eye irritation. 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	: Causes 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 : Toxic to aquatic life with long lasting effects.

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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) : Toxic to aquatic life with long lasting effects.

**12.2. Persistence and degradability**
**EUV-A7MG**

Persistence and degradability	No data available.
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**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.				

**Safety Data Sheet**

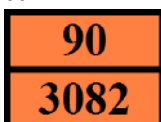
ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
<b>14.2. UN proper shipping name</b>				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Transport document description</b>				
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
<b>14.3. Transport hazard class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
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)	: 5I
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

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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) : -

**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

## Safety Data Sheet

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.

**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



## Safety Data Sheet

## 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
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

## Safety Data Sheet

### Abbreviations and acronyms:

N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

### Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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 Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
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 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
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 1	Specific target organ toxicity – Repeated exposure, Category 1

**Safety Data Sheet**

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RDG Safety Data Sheet (SDS), EU GHS Ver

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.

## Safety Data Sheet

Issue date: 1/17/2025 Version: 1.0

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

## 1.1. Product identifier

Product form : Mixture  
Trade name : EUV-A7YE  
UFI : 76WE-4WY4-TDKU-D5G0

## 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

## 1.4. Emergency telephone number

No additional information available

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

## GHS classification

Health hazards	Acute toxicity (oral)	Category 4
	Acute toxicity (dermal)	Category 5
	Acute toxicity (inhalation:dust/mist)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitization	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity (repeated exposure)	Category 1
Environmental hazards	Hazardous to the aquatic environment, long-term (chronic)	Category 2

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. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

## Safety Data Sheet

### 2.2. Label elements

#### Label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Harmful if swallowed or if inhaled (H302+H332)  
May be harmful in contact with skin (H313)  
Causes skin irritation. (H315)  
May cause an allergic skin reaction. (H317)  
Causes serious eye irritation. (H319)  
Suspected of damaging fertility or the unborn child. (H361)  
Causes damage to organs through prolonged or repeated exposure. (H372)  
Toxic to aquatic life with long lasting effects. (H411)

##### Precautionary statements

##### Prevention

: Obtain special instructions before use. (P201)  
Do not handle until all safety precautions have been read and understood. (P202)  
Do not breathe dust/fume/gas/mist/vapours/spray. (P260)  
Wash hands, forearms and face thoroughly after handling. (P264)  
Do not eat, drink or smoke when using this product. (P270)  
Use only outdoors or in a well-ventilated area. (P271)  
Contaminated work clothing should not be allowed out of the workplace. (P272)  
Avoid release to the environment. (P273)

##### Response

Wear protective gloves/protective clothing/eye protection/face protection. (P280)  
: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)  
IF ON SKIN: Wash with plenty of water. (P302+P352)  
IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
IF exposed or concerned: Get medical advice/attention. (P308+P313)  
Call a POISON CENTER or doctor if you feel unwell. (P312)  
Get medical advice/attention if you feel unwell. (P314)  
Specific treatment (see supplemental first aid instruction on this label). (P321)  
Rinse mouth. (P330)  
If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
If eye irritation persists: Get medical advice/attention. (P337+P313)  
Take off contaminated clothing and wash it before reuse. (P362+P364)  
Collect spillage. (P391)

##### Storage

: Store locked up. (P405)

##### Disposal

: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

### 2.3. Other hazards

No additional information available

**Safety Data Sheet**
**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Propenoic acid, 2-phenoxyethyl ester	CAS-No.: 48145-04-6 EC-No.: 256-360-6 REACH-no: 01-2119980532-35	20 – 40	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
N-VINYL CAPROLACTAM	CAS-No.: 2235-00-9 EC-No.: 218-787-6 REACH-no: 01-2119977109-27	10 – 30	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-ethyl-2-methyl-1,3-dioxolan-4-yl)methyl acrylate	CAS-No.: 69701-99-1	10 – 20	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Poly(oxy-1,2-ethanediyl), $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]-	CAS-No.: 26570-48-9	5 – 10	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated]	CAS-No.: 56641-05-5 EC-No.: 500-133-9	1 – 5	Skin Sens. 1, H317 Aquatic Chronic 2, H411
2-isopropyl-9H-thioxanthen-9-one	CAS-No.: 5495-84-1	1 – 5	Repr. 2, H361 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
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	1 – 5	Skin Sens. 1A, H317 Aquatic Chronic 4, H413
Ethanol, 2-phenoxy-	CAS-No.: 122-99-6 EC-No.: 204-589-7 EC Index-No.: 603-098-00-9	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=1394 mg/kg bodyweight) STOT SE 3, H335 Eye Dam. 1, H318

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.

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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	: 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. If eye irritation persists: Get medical advice/attention.
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	: Eye irritation.
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.
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**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 and eyes.

**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.

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**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	: 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, 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/m <sup>3</sup>
Long-term - local effects, inhalation	77 mg/m <sup>3</sup>

**PNEC (Water)**

PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l



**Safety Data Sheet**

<b>2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)</b>	
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.02 mg/kg dwt
PNEC sediment (marine water)	0.002 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.006 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>N-VINYL CAPROLACTAM (2235-00-9)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.9 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.17 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.04 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.04 mg/m <sup>3</sup>
<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.5 mg/m <sup>3</sup>
Long-term - local effects, inhalation	97 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.0528 mg/kg dwt
PNEC sediment (marine water)	0.00528 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.009 mg/kg dwt

## Safety Data Sheet

<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>2-isopropyl-9H-thioxanthen-9-one (5495-84-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.92 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.06 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.36 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	1.04 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.000125 mg/l
PNEC aqua (marine water)	0.0000125 mg/l
PNEC aqua (intermittent, freshwater)	0.00125 mg/l
PNEC aqua (intermittent, marine water)	0.000125 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.121 mg/kg dwt
PNEC sediment (marine water)	0.0121 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0241 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.333 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	100 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.

## Safety Data Sheet

**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	: Yellow.
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
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## Safety Data Sheet

**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.
Skin corrosion/irritation	: Causes skin irritation. pH: Not available
Serious eye damage/irritation	: Causes serious eye irritation. 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	: Causes 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 : Toxic to aquatic life with long lasting effects.

## Safety Data Sheet

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) : Toxic to aquatic life with long lasting effects.

### 12.2. Persistence and degradability

#### EUV-A7YE

Persistence and degradability	No data available.
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### 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.				

**Safety Data Sheet**

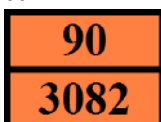
ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
<b>14.2. UN proper shipping name</b>				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Transport document description</b>				
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
<b>14.3. Transport hazard class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
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)	: 5I
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

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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) : -

**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

**Safety Data Sheet**

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.

**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



## Safety Data Sheet

## 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
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

**Safety Data Sheet**
**Abbreviations and acronyms:**

N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

**Full text of H- and EUH-statements:**

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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 Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
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 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
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
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2

## Safety Data Sheet

## Full text of H- and EUH-statements:

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
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

RDG Safety Data Sheet (SDS), EU GHS Ver

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.

## Safety Data Sheet

Issue date: 1/17/2025 Version: 1.0

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

Product form : Mixture  
Trade name : EUV-A7BK  
UFI : J9WE-NWNJ-4DKA-1H22

**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

**1.4. Emergency telephone number**

No additional information available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GHS classification**

Health hazards	Acute toxicity (oral)	Category 4
	Acute toxicity (dermal)	Category 5
	Acute toxicity (inhalation:dust/mist)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitization	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity (repeated exposure)	Category 1
Environmental hazards	Hazardous to the aquatic environment, long-term (chronic)	Category 2

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. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

## Safety Data Sheet

### 2.2. Label elements

#### Label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Harmful if swallowed or if inhaled (H302+H332)  
 May be harmful in contact with skin (H313)  
 Causes skin irritation. (H315)  
 May cause an allergic skin reaction. (H317)  
 Causes serious eye irritation. (H319)  
 Suspected of damaging fertility or the unborn child. (H361)  
 Causes damage to organs through prolonged or repeated exposure. (H372)  
 Toxic to aquatic life with long lasting effects. (H411)

##### Precautionary statements

##### Prevention

: Obtain special instructions before use. (P201)  
 Do not handle until all safety precautions have been read and understood. (P202)  
 Do not breathe dust/fume/gas/mist/vapours/spray. (P260)  
 Wash hands, forearms and face thoroughly after handling. (P264)  
 Do not eat, drink or smoke when using this product. (P270)  
 Use only outdoors or in a well-ventilated area. (P271)  
 Contaminated work clothing should not be allowed out of the workplace. (P272)  
 Avoid release to the environment. (P273)  
 Wear protective gloves/protective clothing/eye protection/face protection. (P280)

##### Response

: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)  
 IF ON SKIN: Wash with plenty of water. (P302+P352)  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340)  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
 IF exposed or concerned: Get medical advice/attention. (P308+P313)  
 Call a POISON CENTER or doctor if you feel unwell. (P312)  
 Get medical advice/attention if you feel unwell. (P314)  
 Specific treatment (see supplemental first aid instruction on this label). (P321)  
 Rinse mouth. (P330)  
 If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
 If eye irritation persists: Get medical advice/attention. (P337+P313)  
 Take off contaminated clothing and wash it before reuse. (P362+P364)  
 Collect spillage. (P391)

##### Storage

: Store locked up. (P405)

##### Disposal

: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

### 2.3. Other hazards

No additional information available

**Safety Data Sheet**
**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Propenoic acid, 2-phenoxyethyl ester	CAS-No.: 48145-04-6 EC-No.: 256-360-6 REACH-no: 01-2119980532-35	20 – 40	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
N-VINYL CAPROLACTAM	CAS-No.: 2235-00-9 EC-No.: 218-787-6 REACH-no: 01-2119977109-27	10 – 30	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-ethyl-2-methyl-1,3-dioxolan-4-yl)methyl acrylate	CAS-No.: 69701-99-1	10 – 20	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Poly(oxy-1,2-ethanediyl), $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]-	CAS-No.: 26570-48-9	5 – 10	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated]	CAS-No.: 56641-05-5 EC-No.: 500-133-9	1 – 5	Skin Sens. 1, H317 Aquatic Chronic 2, H411
2-isopropyl-9H-thioxanthen-9-one	CAS-No.: 5495-84-1	1 – 5	Repr. 2, H361 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
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	1 – 5	Skin Sens. 1A, H317 Aquatic Chronic 4, H413
Carbon Black	CAS-No.: 1333-86-4 EC-No.: 215-609-9 REACH-no: 01-2119969946-13	1 – 5	Not classified
Ethanol, 2-phenoxy-	CAS-No.: 122-99-6 EC-No.: 204-589-7 EC Index-No.: 603-098-00-9	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=1394 mg/kg bodyweight) STOT SE 3, H335 Eye Dam. 1, H318

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

## Safety Data Sheet

**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. Call a poison center or a doctor if you feel unwell.
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. If eye irritation persists: Get medical advice/attention.
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	: Eye irritation.
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.
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**For non-emergency personnel**

Protective equipment	: Wear recommended personal protective equipment.
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## Safety Data Sheet

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

**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 : 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, 2-phenoxyethyl ester (48145-04-6)****DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	3.5 mg/kg bodyweight/day
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## Safety Data Sheet

<b>2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)</b>	
Long-term - systemic effects, inhalation	12 mg/m <sup>3</sup>
Long-term - local effects, inhalation	77 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.02 mg/kg dwt
PNEC sediment (marine water)	0.002 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.006 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>N-VINYL CAPROLACTAM (2235-00-9)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.9 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.17 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.04 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.04 mg/m <sup>3</sup>
<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.5 mg/m <sup>3</sup>
Long-term - local effects, inhalation	97 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l

## Safety Data Sheet

<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.0528 mg/kg dwt
PNEC sediment (marine water)	0.00528 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.009 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>2-isopropyl-9H-thioxanthen-9-one (5495-84-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.92 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.06 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.36 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	1.04 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.000125 mg/l
PNEC aqua (marine water)	0.0000125 mg/l
PNEC aqua (intermittent, freshwater)	0.00125 mg/l
PNEC aqua (intermittent, marine water)	0.000125 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.121 mg/kg dwt
PNEC sediment (marine water)	0.0121 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0241 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.333 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	100 mg/l

## 8.2. Exposure controls

### Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

## Safety Data Sheet

**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	: Black.
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

## Safety Data Sheet

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
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## 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.
Skin corrosion/irritation	: Causes skin irritation. pH: Not available
Serious eye damage/irritation	: Causes serious eye irritation. 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).

#### Carbon Black (1333-86-4)

IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.

## Safety Data Sheet

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)

**11.2. Information on other hazards**

No additional information available

**SECTION 12: Ecological information****12.1. Toxicity**

Ecology - general	: 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)	: Toxic to aquatic life with long lasting effects.

**12.2. Persistence and degradability****EUV-A7BK**

Persistence and degradability	No data available.
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**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

**Safety Data Sheet**
**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
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**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.
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**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
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**14.3. Transport hazard class(es)**

9	9	9	9	9
				

**14.4. Packing group**

III	III	III	III	III
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**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
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No supplementary information available

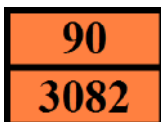
**14.6. Special precautions for user**
**Overland transport**

Classification code (ADR) : M6

## Safety Data Sheet

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Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5I
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)	: -
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**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

**Safety Data Sheet****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.

**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)



## Safety Data Sheet

**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
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)

## Safety Data Sheet

**Abbreviations and acronyms:**

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. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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 Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
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 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
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
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
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.

## Safety Data Sheet

Full text of H- and EUH-statements:	
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 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

RDG Safety Data Sheet (SDS), EU GHS Ver

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.

## Safety Data Sheet

Issue date: 1/17/2025 Version: 1.0

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

Product form : Mixture  
Trade name : EUV-A7WH  
UFI : HCWE-5WAX-EDKT-QUN4

**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

**1.4. Emergency telephone number**

No additional information available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GHS classification**

Health hazards	Acute toxicity (oral)	Category 4
	Acute toxicity (dermal)	Category 5
	Acute toxicity (inhalation:dust/mist)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitization	Category 1
Environmental hazards	Specific target organ toxicity (repeated exposure)	Category 1
	Hazardous to the aquatic environment, long-term (chronic)	Category 1

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. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

## Safety Data Sheet

### 2.2. Label elements

#### Label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Harmful if swallowed or if inhaled (H302+H332)  
 May be harmful in contact with skin (H313)  
 Causes skin irritation. (H315)  
 May cause an allergic skin reaction. (H317)  
 Causes serious eye irritation. (H319)  
 Causes damage to organs through prolonged or repeated exposure. (H372)  
 Very toxic to aquatic life with long lasting effects. (H410)

##### Precautionary statements

##### Prevention

: Do not breathe dust/fume/gas/mist/vapours/spray. (P260)  
 Wash hands, forearms and face thoroughly after handling. (P264)  
 Do not eat, drink or smoke when using this product. (P270)  
 Use only outdoors or in a well-ventilated area. (P271)  
 Contaminated work clothing should not be allowed out of the workplace. (P272)  
 Avoid release to the environment. (P273)  
 Wear protective gloves/protective clothing/eye protection/face protection. (P280)  
 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)  
 IF ON SKIN: Wash with plenty of water. (P302+P352)  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340)  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
 Call a POISON CENTER or doctor if you feel unwell. (P312)  
 Get medical advice/attention if you feel unwell. (P314)  
 Specific treatment (see supplemental first aid instruction on this label). (P321)  
 Rinse mouth. (P330)  
 If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
 If eye irritation persists: Get medical advice/attention. (P337+P313)  
 Take off contaminated clothing and wash it before reuse. (P362+P364)  
 Collect spillage. (P391)

##### Disposal

: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

##### EUH-statements

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

### 2.3. Other hazards

No additional information available

**Safety Data Sheet**
**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 – 40	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 1, H410
N-VINYL CAPROLACTAM	CAS-No.: 2235-00-9 EC-No.: 218-787-6 REACH-no: 01-2119977109-27	10 – 30	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-ethyl-2-methyl-1,3-dioxolan-4-yl)methyl acrylate	CAS-No.: 69701-99-1	10 – 30	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Titanium oxide (TiO <sub>2</sub> )	CAS-No.: 13463-67-7 EC-No.: 236-675-5 EC Index-No.: 022-006-00-2 REACH-no: 01-2119489379-17	–	Not classified
2-Propenoic acid, (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] ester	CAS-No.: 42978-66-5 EC-No.: 256-032-2 EC Index-No.: 607-249-00-X	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 2, H411
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	1 – 5	Skin Sens. 1A, H317 Aquatic Chronic 4, H413
2-Propenoic acid, 2-phenoxyethyl ester	CAS-No.: 48145-04-6 EC-No.: 256-360-6 REACH-no: 01-2119980532-35	0 – 1	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
Glycerol, propoxylated, esters with acrylic acid	CAS-No.: 52408-84-1	< 1	Eye Irrit. 2, H319 Skin Sens. 1, H317

## Safety Data Sheet

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
2-Propenoic acid, (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] ester	CAS-No.: 42978-66-5 EC-No.: 256-032-2 EC Index-No.: 607-249-00-X	(10 ≤ C ≤ 100) STOT SE 3; H335

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. Call a poison center or a doctor if you feel unwell.
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. If eye irritation persists: Get medical advice/attention.
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	: Eye irritation.
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.

## Safety Data Sheet

**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.
<b>For non-emergency personnel</b>	
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 and eyes.
<b>For emergency responders</b>	
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	: 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**
**SECTION 8: Exposure controls/personal protection**
**8.1. Control parameters**
**DNEL and PNEC**
**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 <sup>3</sup>
Long-term - local effects, inhalation	0.17 mg/m <sup>3</sup>

**DNEL/DMEL (General population)**

Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.04 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.04 mg/m <sup>3</sup>

**2-Propenoic acid, (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] ester (42978-66-5)**
**DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	1.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.35 mg/m <sup>3</sup>

**PNEC (Water)**

PNEC aqua (freshwater)	0.0046 mg/l
PNEC aqua (marine water)	0.00046 mg/l
PNEC aqua (intermittent, freshwater)	0.046 mg/l

**PNEC (Sediment)**

PNEC sediment (freshwater)	0.487 mg/kg dwt
PNEC sediment (marine water)	0.0487 mg/kg dwt

**PNEC (Soil)**

PNEC soil	0.0945 mg/kg dwt
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**PNEC (STP)**

PNEC sewage treatment plant	10 mg/l
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**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/m <sup>3</sup>
Long-term - local effects, inhalation	77 mg/m <sup>3</sup>

## Safety Data Sheet

### 2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)

#### PNEC (Water)

PNEC aqua (freshwater)	2 µg/l
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
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#### PNEC (STP)

PNEC sewage treatment plant	1.77 mg/l
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### Glycerol, propoxylated, esters with acrylic acid (52408-84-1)

#### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	2.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.4 mg/m³

#### PNEC (Water)

PNEC aqua (freshwater)	0.00574 mg/l
PNEC aqua (marine water)	0.000574 mg/l
PNEC aqua (intermittent, freshwater)	0.0574 mg/l

#### PNEC (Sediment)

PNEC sediment (freshwater)	0.078 mg/kg dwt
PNEC sediment (marine water)	0.0078 mg/kg dwt

#### PNEC (Soil)

PNEC soil	0.0122 mg/kg dwt
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#### PNEC (STP)

PNEC sewage treatment plant	10 mg/l
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## 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.

## Safety Data Sheet

**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	: white.
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 – 1.2
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

## Safety Data Sheet

## 9.2. Other information

## Other safety characteristics

SAPT : &gt; 50 °C

## 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.
Skin corrosion/irritation	: Causes skin irritation. pH: Not available
Serious eye damage/irritation	: Causes serious eye irritation. 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).

Titanium oxide (TiO<sub>2</sub>) (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
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)

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**11.2. Information on other hazards**

No additional information available

**SECTION 12: Ecological information****12.1. Toxicity**

Ecology - general	: 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****EUV-A7WH**

Persistence and degradability	No data available.
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**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

**EUV-A7WH**
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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.				
<b>14.1. UN number or ID number</b>				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
<b>14.2. UN proper shipping name</b>				
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.
<b>Transport document description</b>				
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
<b>14.3. Transport hazard class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
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				

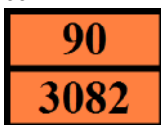
**14.6. Special precautions for user**
**Overland transport**

Classification code (ADR)	: M6
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1

## Safety Data Sheet

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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)	: -
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**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

**Safety Data Sheet**

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.

**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



## Safety Data Sheet

## 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
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

## Safety Data Sheet

### Abbreviations and acronyms:

N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

### Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging 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.
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 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

**Safety Data Sheet**

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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.

## Safety Data Sheet

Issue date: 1/17/2025 Version: 1.0

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

Product form : Mixture  
Trade name : EUV-A7GL  
UFI : GFWE-PW1A-RDKA-C676

**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

**1.4. Emergency telephone number**

No additional information available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GHS classification**

Health hazards	Acute toxicity (oral)	Category 4
	Acute toxicity (dermal)	Category 5
	Acute toxicity (inhalation:dust/mist)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitization	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity (repeated exposure)	Category 1
Environmental hazards	Hazardous to the aquatic environment, long-term (chronic)	Category 2

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. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.



**Safety Data Sheet**
**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Propenoic acid, 2-phenoxyethyl ester	CAS-No.: 48145-04-6 EC-No.: 256-360-6 REACH-no: 01-2119980532-35	20 – 40	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 2, H411
N-VINYL CAPROLACTAM	CAS-No.: 2235-00-9 EC-No.: 218-787-6 REACH-no: 01-2119977109-27	10 – 30	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
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	CAS-No.: 66492-51-1 EC-No.: 266-380-7	5 – 10	Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 2, H411
3-methyl-1,5-pentanedyl diacrylate	CAS-No.: 64194-22-5 EC-No.: 264-727-7	5 – 10	Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated]	CAS-No.: 56641-05-5 EC-No.: 500-133-9	1 – 5	Skin Sens. 1, H317 Aquatic Chronic 2, H411
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	1 – 5	Skin Sens. 1A, H317 Aquatic Chronic 4, H413
Ethanol, 2-phenoxy-	CAS-No.: 122-99-6 EC-No.: 204-589-7 EC Index-No.: 603-098-00-9	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=1394 mg/kg bodyweight) STOT SE 3, H335 Eye Dam. 1, H318
2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester	CAS-No.: 15625-89-5 EC-No.: 239-701-3 EC Index-No.: 607-111-00-9	< 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Phenol, 4-methoxy-	CAS-No.: 150-76-5 EC-No.: 205-769-8 EC Index-No.: 604-044-00-7	< 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

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**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. Call a poison center or a doctor if you feel unwell.
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. If eye irritation persists: Get medical advice/attention.
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	: Eye irritation.
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.
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**For non-emergency personnel**

Protective equipment	: Wear recommended personal protective equipment.
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## Safety Data Sheet

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

**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 : 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, 2-phenoxyethyl ester (48145-04-6)****DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	3.5 mg/kg bodyweight/day
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**Safety Data Sheet**

<b>2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)</b>	
Long-term - systemic effects, inhalation	12 mg/m <sup>3</sup>
Long-term - local effects, inhalation	77 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.02 mg/kg dwt
PNEC sediment (marine water)	0.002 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.006 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>N-VINYL CAPROLACTAM (2235-00-9)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.9 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.17 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.04 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.04 mg/m <sup>3</sup>
<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.5 mg/m <sup>3</sup>
Long-term - local effects, inhalation	97 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	0.0121 mg/l

**Safety Data Sheet**

<b>Phenol, ethoxylated, esters with acrylic acid [1 - 2.5 moles ethoxylated] (56641-05-5)</b>	
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.0528 mg/kg dwt
PNEC sediment (marine water)	0.00528 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.009 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.77 mg/l
<b>Ethanol, 2-phenoxy- (122-99-6)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	20.83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5.7 mg/m <sup>3</sup>
Long-term - local effects, inhalation	5.7 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, oral	9.23 mg/kg bodyweight/day
Long-term - systemic effects, oral	9.23 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.41 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	10.42 mg/kg bodyweight/day
Long-term - local effects, inhalation	2.41 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.943 mg/l
PNEC aqua (marine water)	0.0943 mg/l
PNEC aqua (intermittent, freshwater)	3.44 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	7.2366 mg/kg dwt
PNEC sediment (marine water)	0.7237 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	1.31 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	36 mg/l
<b>(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1)</b>	
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.004 mg/l
PNEC aqua (marine water)	0.0004 mg/l

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<b>(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1)</b>	
PNEC aqua (intermittent, freshwater)	0.04 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.019 mg/kg dwt
PNEC sediment (marine water)	0.0019 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0014 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	30 mg/l
<b>3-methyl-1,5-pentanediy l diacrylate (64194-22-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	42 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.81 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects,oral	1.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.6 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	15 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.00542 mg/l
PNEC aqua (marine water)	0.000542 mg/l
PNEC aqua (intermittent, freshwater)	0.01234 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.1375 mg/kg dwt
PNEC sediment (marine water)	0.0138 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l
<b>2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	404 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	17.1 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.87 µg/l
PNEC aqua (marine water)	0.087 µg/l
PNEC aqua (intermittent, freshwater)	8.7 µg/l

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**2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)****PNEC (Sediment)**

PNEC sediment (freshwater)	0.017 mg/kg dwt
PNEC sediment (marine water)	0.0017 mg/kg dwt

**PNEC (Soil)**

PNEC soil	0.0029 mg/kg dwt
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**PNEC (Oral)**

PNEC oral (secondary poisoning)	10 mg/kg food
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**PNEC (STP)**

PNEC sewage treatment plant	6.25 mg/l
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**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.

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Colour	: Colourless.
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
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**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

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**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.
Skin corrosion/irritation	: Causes skin irritation. pH: Not available
Serious eye damage/irritation	: Causes serious eye irritation. 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).

**2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)**

IARC group	2B - Possibly carcinogenic 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	: Causes 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	: 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)	: Toxic to aquatic life with long lasting effects.

**12.2. Persistence and degradability****EUV-A7GL**

Persistence and degradability	No data available.
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**12.3. Bioaccumulative potential**

No additional information available

**12.4. Mobility in soil**

No additional information available

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### 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




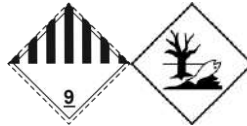
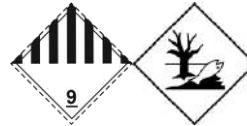
Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging 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

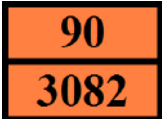
ADR	IMDG	IATA	ADN	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single 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.				
<b>14.1. UN number or ID number</b>				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
<b>14.2. UN proper shipping name</b>				
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.
<b>Transport document description</b>				
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

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ADR	IMDG	IATA	ADN	RID
<b>14.3. Transport hazard class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
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)	: 5I
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) : -

#### Transport by sea

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001



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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

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**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.

**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

**Safety Data Sheet**
**Abbreviations and acronyms:**

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

**Full text of H- and EUH-statements:**

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 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4

## Safety Data Sheet

Full text of H- and EUH-statements:	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
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 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

RDG Safety Data Sheet (SDS), EU GHS Ver

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.