

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

### 1.1. Product Identifier

**Product name** T53R3  
 UFI:UCNW-9KS0-9J03-7HEP

**Pure substance/mixture** mixture

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

**Recommended Use** Ink jet ink (UV curing)  
**Uses advised against** No information available

### 1.3. Details of the supplier of the safety data sheet

<u>Company Name</u>	<u>Importer / Supplier</u>
EPSON EUROPE B.V. Azie building, Atlas ArenA, Hoogoorddreef 5,1101 BA Amsterdam Zuidoost The Netherlands Phone number: +31-20-314-5000	-

For further information, please contact

**Contact Point** +31-20-314-5000  
**Email address** chemicals@epson.eu

### 1.4. Emergency telephone number

**Emergency telephone** Phone number: +31-20-314-5000  
 Giftnotruf Berlin; +49 (0)30 30686 790  
 Antigif Belgisch; +32 (0)70 245 245  
 Austria; +43 1 406 43 43

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

*Regulation (EC) No 1272/2008*

Acute toxicity - Oral	Category 4 - (H302)
skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1A - (H317)
Reproductive toxicity	Category 2 - (H361)
Specific target organ toxicity — repeated exposure	Category 1 - (H372)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

### 2.2. Label Elements

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**Symbols/Pictograms****Signal Word**  
DANGER**hazard statements**

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H361 - Suspected of damaging fertility or the unborn child  
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  
Contains 2-Propenoic acid, phenylmethyl ester  
2H-Azepin-2-one, 1-ethenylhexahydro-  
Morpholine, 4-(1-oxo-2-propenyl)-  
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-  
EUH208 - May produce an allergic reaction

**precautionary statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
P330 - Rinse mouth  
P501 - Dispose of contents/ container to an approved waste disposal plant  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap  
P321 - Specific treatment  
P332 + P313 - If skin irritation occurs: Get medical advice/attention  
P362 + P364 - Take off contaminated clothing and wash it before reuse  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P405 - Store locked up  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray  
P314 - Get medical advice/attention if you feel unwell  
P273 - Avoid release to the environment  
P391 - Collect spillage

**2.3. Other Hazards****General Hazards**

No information available

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

### 3.2 MIXTURES

Ingredients contributing to the classification of the mixture, etc.

Chemical name	EC No	CAS No	weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP] / Other	REACH registration number
2-Propenoic acid, phenylmethyl ester	219-673-9	2495-35-4	30-40	Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-
Morpholine, 4-(1-oxo-2-propenyl)-	-	5117-12-4	10-20	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) STOT RE 2 (H373)	-
2H-Azepin-2-one, 1-ethenylhexahydro-	218-787-6	2235-00-9	10-20	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Skin Sens. 1B (H317) STOT RE 1 (H372)	-
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	278-355-8	75980-60-8	5-10	Repr. 2 (H361)	-
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	227-561-6	5888-33-5	5-10	Acute Tox. 5 (H303) Acute Tox. 5 (H313) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1A (H317) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-
2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester	230-811-7	7328-17-8	1-5	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1A (H317) Aquatic Chronic 2 (H411)	-
Trimethylolpropane polyoxyethylene triacrylate	-	28961-43-5	1-5	Eye Irrit. 2 (H319) Skin Sens. 1B (H317) Aquatic Chronic 3 (H412)	-
Benzene, ethenyl-, copolymer with 2,5-Furandione and Benzene, 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl) bis-, rp. with Oxirane,methyl, polymer with oxirane, 2-aminopropyl methyl ether and 1,3-Propanediamine, N,N-dimethyl-, Oxirane, mono[(C10-16-alkyloxy)methyl] derivs. - quaternised, compound with Benzoic acid	-	-	1-5	Aquatic Acute 1 (H400)	-
Bis(2-ethylhexyl)-2-butenedioate	205-524-5	142-16-5	< 1	Skin Sens. 1B (H317) Aquatic Acute 3 (H402) Aquatic Chronic 1 (H410)	-
Caprolactam	203-313-2	105-60-2	< 1	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Acute Tox. 4 (H312) Repr. 2 (H361)	-

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				STOT RE 1 (H372)	
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propenyl)oxy]-	-	52408-84-1	< 1	Eye Irrit. 2A (H319) Skin Sens. 1 (H317)	-
1,6-Hexanediol diacrylate	235-921-9	13048-33-4	< 1	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-
2,5-Cyclohexadien-1-one, 2,6-bis(1,1-dimethylethyl)-4-(phenylmethylene)-	-	7078-98-0	< 1	Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)	-
4-Methoxyphenol	205-769-8	150-76-5	< 1	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Carc. 2 (H351) Repr. 2 (H361) Aquatic Acute 2 (H401)	-

**Full text of H- and EUH-phrases: see section 16**

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- General advice** Immediate medical attention is required  
 If symptoms persist, call a doctor  
 Do not breathe dust/fume/gas/mist/vapours/spray  
 Do not get in eyes, on skin, or on clothing  
 May produce an allergic reaction
- inhalation** Remove to fresh air  
 Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation  
 Seek immediate medical attention/advice  
 If breathing is irregular or stopped, administer artificial respiration  
 Move to fresh air in case of accidental inhalation of vapours  
 If symptoms persist, call a doctor  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 IF INHALED: Call a POISON CENTER or doctor if you feel unwell
- Skin contact** Immediate medical attention is required  
 Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes  
 Wash contaminated clothing before reuse  
 Wash off immediately with soap and plenty of water  
 If skin irritation persists, call a doctor  
 Get medical attention if irritation develops and persists
- Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes  
 Keep eye wide open while rinsing  
 Call a doctor immediately  
 Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes  
 If symptoms persist, call a doctor  
 If eye irritation persists: Get medical advice/attention
- INGESTION** Do NOT induce vomiting  
 Clean mouth with water and drink afterwards plenty of water

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Never give anything by mouth to an unconscious person  
 Call a doctor or poison control centre immediately  
 Call a doctor  
 Potential for aspiration if swallowed  
 Get medical attention  
 Clean mouth with water

**Self-protection of the first aider** Use personal protection recommended in Section 8  
 Avoid contact with skin, eyes or clothing

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

**Symptoms** No information available

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

**Note to doctors** May cause sensitization of susceptible persons  
 Treat symptomatically

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media** CO2, dry chemical, dry sand, alcohol-resistant foam, mist of alkali salts water  
 Move containers from fire area if you can do it without risk  
 Use extinguishing measures that are appropriate to local circumstances and the surrounding environment  
 Remove combustible materials from their surroundings immediately

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire

**5.2. Special hazards arising from the substance or mixture**

**Specific hazards arising from the chemical** In the event of fire and/or explosion do not breathe fumes  
 May cause sensitisation by inhalation and skin contact  
 Thermal decomposition can lead to release of irritating and toxic gases and vapours  
 The product causes irritation of eyes, skin and mucous membranes

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighters** Wear self contained breathing apparatus for fire fighting if necessary  
 Use personal protective equipment as required  
 In the event of fire and/or explosion do not breathe fumes  
 Special protective equipment for fire-fighters

**Special Extinguishing Media** Cool container with water spray

**Flammable properties** May re-ignite after fire is extinguished  
 Flammable/combustible material

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

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**Personal precautions** Use personal protective equipment as required  
Keep people away from and upwind of spill/leak  
Evacuate personnel to safe areas  
Stay upwind  
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)  
Avoid contact with skin, eyes and inhalation of vapours  
In the case of vapour formation use a respirator with filter model  
In case of fire: Stop leak if safe to do so  
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing  
Ensure adequate ventilation, especially in confined areas  
Take precautionary measures against static discharges

**Other information** Ventilate the area

### 6.2. Environmental precautions

**Environmental Precautions** Prevent further leakage or spillage if safe to do so  
Prevent product from entering drains  
Do not flush into surface water or sanitary sewer system  
See Section 12 for additional Ecological Information  
Dispose of contents/container to an approved waste disposal plant  
Avoid release to the environment  
Collect spillage

### 6.3. Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so  
Cover powder spill with plastic sheet or tarp to minimise spreading  
Dyke far ahead of liquid spill for later disposal

**Methods for cleaning up** Cover liquid spill with sand, earth or other non-combustible absorbent material  
Cover powder spill with plastic sheet or tarp to minimise spreading  
Sweep up and shovel into suitable containers for disposal  
Soak up with inert absorbent material  
Dam up  
Pick up and transfer to properly labelled containers  
Use only non-sparking tools

### 6.4. Reference to other sections

**Reference to other sections** No information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes or clothing  
Wash contaminated clothing before reuse  
Do not eat, drink or smoke when using this product  
Use personal protection recommended in Section 8  
Do not breathe dust/fume/gas/mist/vapours/spray  
Use with local exhaust ventilation  
Take precautionary measures against static discharges  
Use only in well-ventilated areas  
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea  
Wash hands thoroughly and gargle after handling

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Burn or dispose of the wiping cloths used to clean up the product at once  
May cause sensitisation by inhalation and skin contact

**General hygiene considerations** When using do not eat, drink or smoke  
Regular cleaning of equipment, work area and clothing is recommended  
Avoid contact with skin, eyes or clothing  
Wash hands thoroughly after handling  
Keep away from food, drink and animal feedingstuffs

## 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place  
Keep out of the reach of children  
Keep in properly labelled containers  
Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity)  
Use spark-proof tools and explosion-proof equipment  
Incompatible with oxidising agents  
The product shall be stored in the original containers/vessels  
Polymerisation is caused by ultra violet rays or heat. Store in a cool, dark and well-ventilated place. Containers/vessels should be tightly closed

## 7.3. Specific end use(s)

**Other information** No information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Chemical name	European Union	United Kingdom	France	Spain	Germany
Caprolactam	TWA: 10 mg/m <sup>3</sup> dust and vapour STEL 40 mg/m <sup>3</sup> dust and vapour	STEL: 3 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 40 mg/m <sup>3</sup>	STEL: 40 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> Ceiling / Peak: 10 mg/m <sup>3</sup>
4-Methoxyphenol	-	-	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	-

Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Caprolactam	TWA: 10 mg/m <sup>3</sup> STEL: 40 mg/m <sup>3</sup>	STEL: 40 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	TWA: 20 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 40 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 10 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>
4-Methoxyphenol	-	TWA: 5 mg/m <sup>3</sup>	-	-	TWA: 5 mg/m <sup>3</sup>

Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Sweden	Czech Republic	Luxembourg
Caprolactam	STEL: 40 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	STEL: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 40 mg/m <sup>3</sup> STEL: 60 mg/m <sup>3</sup> STEL: 15 ppm	TWA: 10 mg/m <sup>3</sup> STEL: 40 mg/m <sup>3</sup>	5 mg/m <sup>3</sup> TLV NGV (dust and vapor) 40 mg/m <sup>3</sup> Binding STEL Bindande KGV (dust and vapor)	Ceiling: 3 mg/m <sup>3</sup> Ceiling: 40 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> TWA (powder and vapor) 40 mg/m <sup>3</sup> STEL (powder and vapor)
4-Methoxyphenol	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup>	-	-	-

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**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

## 8.2. Exposure controls

**Engineering controls** Ensure adequate ventilation, especially in confined areas  
Showers  
Eyewash stations  
Ventilation systems

## **Personal Protective Equipment**

**Eye/face Protection** Tight sealing safety goggles  
Face protection shield  
Wear safety glasses with side shields (or goggles)

**Hand protection** Wear protective gloves

**Skin and Body Protection** Suitable protective clothing  
Gloves made of plastic or rubber  
Wear suitable protective clothing  
Apron  
Protective shoes or boots

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment  
Respirator cartridge should be exchanged at regular intervals or at proper time according to breakthrough time

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained  
Do not allow into any sewer, on the ground or into any body of water  
Prevent product from entering drains

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	liquid	<b>Odour</b>	characteristic odour
<b>appearance</b>	No information available	<b>odour threshold</b>	No information available
<b>color</b>	colored		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	
<b>pH</b>	not applicable		
<b>Melting point/freezing point</b>	no data available		
<b>Boiling point/boiling range</b>	no data available		No information available
<b>Flash Point</b>	≥94°C		Ceta Closed Cup
<b>Evaporation Rate</b>	no data available		No information available
<b>Combustibility</b>	no data available		
<b>Flammability Limits in Air</b>			



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Upper flammability limits	no data available	
Lower Flammability Limit	no data available	
vapour pressure	no data available	No information available
Vapour density	no data available	No information available
Relative Density	1.00-1.10	
solubility(ies)		
Water solubility	Immiscible in water	
Organic Solvent Solubility	soluble in organic solvents	
Partition coefficient	no data available	No information available
Autoignition temperature	no data available	No information available
decomposition temperature	no data available	No information available
Kinematic viscosity	no data available	
Explosive properties	No information available	
Oxidising properties	No information available	
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

### 9.2. Other information

softening point	no data available
density	no data available

Chemical name	Boiling point °C	density	Vapour pressure	Vapour density	Flash Point	Autoignition temperature
2-Propenoic acid, phenylmethyl ester	228 °C 1013.25 hPa	1.0573 g/cm <sup>3</sup> at 20 °C	-	-	-	-
Bis(2-ethylhexyl)-2-butenedioate	164 °C 10 mmHg	0.94 g/cm <sup>3</sup> at 20 °C	<0.01 hPa at 20 °C	-	185 °C	-
Caprolactam	270 °C	1.014 g/cm <sup>3</sup> at 80 °C	0.0014 hPa at 20 °C	-	152 °C closed cup	395 °C
1,6-Hexanediol diacrylate	-	-	0.0005 mmHg at 21 °C	-	132 °C closed cup	-
4-Methoxyphenol	243 - 246 °C	-	-	4.3	132 °C open cup	421 °C

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	no data available
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### 10.2. Chemical stability

stability	Stable under normal conditions Polymerisation can occur Heating may cause an explosion
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#### Explosion data

Sensitivity to Mechanical Impact	May be ignited by heat, sparks or flames
Sensitivity to Static Discharge	May be ignited by heat, sparks or flames

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No information available
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## 10.4. Conditions to avoid

**Conditions to Avoid** Take precautionary measures against static discharges  
Extremes of temperature and direct sunlight  
Heat

## 10.5. Incompatible materials

**Incompatible Materials** Strong acids; OXIDISERS; alkali; light; peroxides; radical initiators; Heat

## 10.6. Hazardous decomposition products

**Hazardous decomposition products** May emit toxic fumes under fire conditions

## SECTION 11: Toxicological information

Repeated or prolonged contact may cause allergic reactions in very susceptible persons  
May cause sensitisation by skin contact

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

#### Acute Toxicity

**inhalation** Reference to other sections; 4  
**Eye Contact** Reference to other sections; 4  
**Skin contact** Reference to other sections; 4  
**INGESTION** Reference to other sections; 4

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 1,433.60 mg/kg  
**ATEmix (dermal)** 2,640.20 mg/kg

#### Unknown acute toxicity

7.6 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
56.9 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
97.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
93.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)  
89.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)

Chemical name	Oral LD50	dermal LD50	Inhalation LC50	Classification according to Regulation (EC) No. 1272/2008 [CLP] / Other	Japan GHS Classification / Other
2-Propenoic acid, phenylmethyl ester	-	-	-	Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Skin Irrit. 2 Skin Sens. 1B Aquatic Acute 1 Aquatic Chronic 1
Morpholine, 4-(1-oxo-2-propenyl)-	-	-	-	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) STOT RE 2 (H373)	-
2H-Azepin-2-one, 1-ethenylhexahydro-	-	-	-	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Skin Sens. 1B (H317) STOT RE 1 (H372)	Acute Tox. Oral 4 Eye Irrit. 2 Skin Sens. 1B STOT RE 1

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Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	-	-	-	Repr. 2 (H361)	-
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	4890 mg/kg ( Rat )	> 5 g/kg ( Rabbit )	-	Acute Tox. 5 (H303) Acute Tox. 5 (H313) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1A (H317) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1A STOT SE 3 Aquatic Acute 1 Aquatic Chronic 1
2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester	-	-	-	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1A (H317) Aquatic Chronic 2 (H411)	Acute Tox. Oral 4 Acute Tox. Der. 3 Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1A Aquatic Chronic 2
Trimethylolpropane polyoxyethylene triacrylate	-	> 13 g/kg ( Rabbit )	-	Eye Irrit. 2 (H319) Skin Sens. 1B (H317) Aquatic Chronic 3 (H412)	Eye Irrit. 2 Skin Sens. 1B Aquatic Chronic 3
Benzene, ethenyl-, copolymer with 2,5-Furandione and Benzene, 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bis-, rp. with Oxirane, methyl, polymer with oxirane, 2-aminopropyl methyl ether and 1,3-Propanediamine, N,N-dimethyl-, Oxirane, mono[(C10-16-alkyloxy)methyl] derivs. - quaternised, compound with Benzoic acid	-	-	-	Aquatic Acute 1 (H400)	Aquatic Acute 1
Bis(2-ethylhexyl)-2-butenedioate	14 g/kg ( Rat )	14415 mg/kg ( Rabbit ) 15 mL/kg ( Rabbit )	-	Skin Sens. 1B (H317) Aquatic Acute 3 (H402) Aquatic Chronic 1 (H410)	Skin Sens. 1B Aquatic Acute 3 Aquatic Chronic 1
Caprolactam	1210 mg/kg ( Rat )	1410 µL/kg ( Rabbit ) 1438 mg/kg ( Rabbit )	8.16 mg/L ( Rat ) 4 h	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Acute Tox. 4 (H312) Repr. 2 (H361) STOT RE 1 (H372)	Repr. 2 Skin Irrit. 2 Eye Irrit. 2 STOT RE 1 STOT SE 2 STOT SE 3 Acute Tox. Der. 4 Acute Tox. Oral 4
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.,.alpha."-1,2,3-propanetriyltris[.omega.-(1-oxo-2-propenyl)oxy]-	-	-	-	Eye Irrit. 2A (H319) Skin Sens. 1 (H317)	Eye Irrit. 2A Skin Sens. 1
1,6-Hexanediol diacrylate	5 g/kg ( Rat )	3600 µL/kg ( Rabbit ) 3600 mg/kg ( Rabbit )	-	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Skin Sens. 1 Aquatic Acute 1 Aquatic Chronic 1
2,5-Cyclohexadien-1-one, 2,6-bis(1,1-dimethylethyl)-4-(phenylmethylene)-	-	-	-	Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)	-
4-Methoxyphenol	1600 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	-	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Carc. 2 (H351) Repr. 2 (H361) Aquatic Acute 2 (H401)	Acute Tox. Oral 4 Skin Irrit. 2 Eye Irrit. 2B Skin Sens. 1 Carc. 2 Repr. 2 Aquatic Acute 2

**GHS/CLP Classification Note:**

Acute Tox. Der. :Acute toxicity - Dermal, Acute Tox. Inh. (D/M) :Acute toxicity - Inhalation - Dusts and Mists, Acute Tox. Inh. (Gas) :Acute toxicity - Inhalation - Gases, Acute Tox. Inh. (Vap) :Acute toxicity - Inhalation - Vapours, Acute Tox. Oral :Acute toxicity - Oral, Aquatic Acute :Acute Hazardous to the aquatic environment, Aquatic Chronic :Chronic Hazardous to the aquatic environment, Asp. Tox. :Aspiration hazard, Carc. :Carcinogenicity, Expl. :Explosives, Eye Dam. :Serious eye damage, Eye

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Irrit. :Eye irritation, Flam. Gas :Flammable gases (including chemically unstable gases), Flam. Liq. :Flammable liquids, Flam. Solid :Flammable solids, Lact. :Effects on or via lactation, Met. Corr. :Corrosive to metals, Muta. :Germ cell mutagenicity, Org. Perox. :Organic peroxides, Ox. Gas :Oxidizing gases, Ox. Liq. :Oxidizing liquids, Ox. Sol. :Oxidizing solids, Press. Gas :Gases under pressure, Pyr. Liq. :Pyrophoric liquids, Pyr. Sol. :Pyrophoric solids, Repr. :Reproductive toxicity, Resp. Sens. :Respiratory sensitization, Self-heat. :Self-heating substances and mixtures, Self-react. :Self-reactive substances and mixtures, Skin Corr. :Skin corrosion, Skin Irrit. :Skin irritation, Skin Sens. :Skin sensitization, STOT RE :Specific target organ toxicity – Repeated exposure, STOT SE :Specific target organ toxicity – Single exposure, Water-react. :Substances and mixtures which, in contact with water emit flammable gases

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>skin corrosion/irritation</b>	No information available
<b>Serious eye damage/eye irritation</b>	No information available
<b>Respiratory or skin sensitisation</b>	No information available
<b>Germ Cell Mutagenicity</b>	No information available
<b>Carcinogenicity</b>	No information available
<b>Reproductive Toxicity</b>	No information available
<b>STOT - single exposure</b>	No information available
<b>STOT - repeated exposure</b>	No information available
<b>Aspiration Hazard</b>	No information available

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** No information available

#### 11.2.2. Other information

**Other adverse effects** No information available

## SECTION 12: Ecological information

### 12.1. Toxicity

**Unknown aquatic toxicity** 45.3% of the mixture consists of component(s) of unknown hazards to the aquatic environment

### 12.2. Persistence and degradability

**Persistence and degradability** No information available

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## 12.3. Bioaccumulative potential

**Bioaccumulation** No information available

Chemical name	Partition coefficient
Caprolactam	-0.02
4-Methoxyphenol	1.3

## 12.4. Mobility in soil

**Mobility in soil** No information available

## 12.5. Results of PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
2-Propenoic acid, phenylmethyl ester	The substance is not PBT / vPvB
Morpholine, 4-(1-oxo-2-propenyl)-	The substance is not PBT / vPvB
2H-Azepin-2-one, 1-ethenylhexahydro-	The substance is not PBT / vPvB
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	The substance is not PBT / vPvB
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	The substance is not PBT / vPvB
2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester	The substance is not PBT / vPvB
Trimethylolpropane polyoxyethylene triacrylate	The substance is not PBT / vPvB
Bis(2-ethylhexyl)-2-butenedioate	The substance is not PBT / vPvB
Caprolactam	The substance is not PBT / vPvB
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha.'"-1,2,3-propanetriyltris[.omega.-{(1-oxo-2-propenyl)oxy]-	The substance is not PBT / vPvB
1,6-Hexanediol diacrylate	The substance is not PBT / vPvB
2,5-Cyclohexadien-1-one, 2,6-bis(1,1-dimethylethyl)-4-(phenylmethylene)-	The substance is not PBT / vPvB
4-Methoxyphenol	The substance is not PBT / vPvB

**Other information** No information available

## 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available

## 12.7. Other adverse effects

**Other adverse effects** No information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Waste from Residues/Unused Products** Should not be released into the environment  
Disposal should be in accordance with applicable regional, national and local laws and regulations

**Contaminated packaging** Improper disposal or reuse of this container may be dangerous and illegal

**Other information** Waste codes should be assigned by the user based on the application for which the product was used  
Store in a tightly sealed drum to prevent the spillage of the content

## SECTION 14: Transport information

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Containers/vessels must be leakage-free. Loading must be done to prevent containers from falling, dropping down and being damaged  
 Take necessary steps to prevent collapse  
 Use opaque containers/vessels for storage and transport

**UN number** UN3082  
**Packing group** III  
**ERG Code** 171  
**Proper Shipping Name** Environmentally hazardous substances, liquid, n.o.s

**IMDG**

**14.1 UN number** UN3082  
**14.2 Proper Shipping Name** Environmentally hazardous substances, liquid, n.o.s  
**14.3 Hazard Class** 9  
**14.4 Packing group** III  
**Environmental hazard** Yes  
**14.6 Special Provisions** None  
**EmS-No** F-A, S-F  
**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**RID**

**14.1 UN number** UN3082  
**14.2 Proper Shipping Name** Environmentally hazardous substances, liquid, n.o.s  
**14.3 Hazard Class** 9  
**14.4 Packing group** III  
**14.5 Environmental hazard** Yes  
**Classification code** M6  
**14.6 Special Provisions** None

**ADR**

**14.1 UN number** UN3082  
**14.2 Proper Shipping Name** Environmentally hazardous substances, liquid, n.o.s  
**14.3 Hazard Class** 9  
**Labels** 9  
**14.4 Packing group** III  
**14.5 Environmental hazard** Yes  
**14.6 Special Provisions** None  
**Classification code** M6

**ICAO (air)**

**14.1 UN number** UN3082  
**14.2 Proper Shipping Name** Environmentally hazardous substances, liquid, n.o.s  
**14.3 Hazard Class** 9  
**14.4 Packing group** III  
**14.5 Environmental hazard** Yes  
**14.6 Special Provisions** None

**IATA**

**14.1 UN number** UN3082  
**14.2 Proper Shipping Name** Environmentally hazardous substances, liquid, n.o.s  
**14.3 Hazard Class** 9  
**14.4 Packing group** III  
**14.5 Environmental hazard** Yes

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**14.6 Special Provisions** None  
**ERG Code** 9L

## SECTION 15: Regulatory information

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

Chemical name	CAS No	French RG number	Seveso III Derective
2-Propenoic acid, phenylmethyl ester	2495-35-4	-	No information available
Morpholine, 4-(1-oxo-2-propenyl)-	5117-12-4	-	No information available
2H-Azepin-2-one, 1-ethenylhexahydro-	2235-00-9	-	No information available
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	75980-60-8	-	No information available
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	5888-33-5	-	No information available
2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester	7328-17-8	-	No information available
Trimethylolpropane polyoxyethylene triacrylate	28961-43-5	-	No information available
Benzene, ethenyl-, copolymer with 2,5-Furandione and Benzene, 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bis-, rp. with Oxirane,methyl, polymer with oxirane, 2-aminopropyl methyl ether and 1,3-Propanediamine, N,N-dimethyl-, Oxirane, mono[(C10-16-alkyloxy)methyl] derivs. - quaternised, compound with Benzoic acid	-	-	No information available
Bis(2-ethylhexyl)-2-butenedioate	142-16-5	-	No information available
Caprolactam	105-60-2	-	No information available
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.', .alpha."-1,2,3-prop anetriyltris[.omega.-{(1-oxo-2-propenyl)oxy]-	52408-84-1	-	No information available
1,6-Hexanediol diacrylate	13048-33-4	-	No information available
2,5-Cyclohexadien-1-one, 2,6-bis(1,1-dimethylethyl)-4-(phenylmethylene)-	7078-98-0	-	No information available
4-Methoxyphenol	150-76-5	RG 65	No information available

### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

SVHC Substances    Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):  
 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide  
 SVHC

Authorisations and/or restrictions on use:            This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

### 15.2. Chemical safety assessment

**Chemical Safety Report**                                  No information available

## SECTION 16: Other information

### Full text of H-Statements referred to under section 3

- H302 - Harmful if swallowed
- H303 - May be harmful if swallowed
- H311 - Toxic in contact with skin
- H312 - Harmful in contact with skin

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H313 - May be 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  
 H351 - Suspected of causing cancer  
 H361 - Suspected of damaging fertility or the unborn child  
 H372 - Causes damage to organs through prolonged or repeated exposure if inhaled  
 H373 - May cause damage to organs through prolonged or repeated exposure if inhaled  
 H400 - Very toxic to aquatic life  
 H401 - Toxic to aquatic life  
 H402 - Harmful 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

### Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

**Key literature references and sources for data** LOLI Database (ChemADVISOR, Inc.)

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**Revision date** 10-Apr-2024

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

### Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text



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End of Safety Data Sheet