SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

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

1.1 Product identifier

Product name: STRATA SERIES BLACK UV INK

Other means of identification:

UFI: YTS1-4060-400Q-T11R

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

Printing ink

Uses advised against: For industrial use only

1.3 Details of the supplier of the safety data sheet Manufacturer

Supplier

LogoJET Inc.
301 Prides Crossing
Lafayette, LA
70508
USA

Telephone: +1 337-330-8471
E-mail: supplies@logojet.com

1.4 Emergency telephone number:

Emergency telephone number (Chemtrec): 1-800-424-9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567 Health Hazards

Skin irritation	Category 2	H315: Causes skin irritation.
Serious eye damage	Category 1	H318: Causes serious eye damage.
Skin sensitizer	Category 1	H317: May cause an allergic skin reaction.
Toxic to reproduction	Category 1B	H360Df: May damage the unborn child. Suspected of damaging fertility.
Specific Target Organ Toxicity - Single Exposure	Category 3	H335: May cause respiratory irritation.
Specific Target Organ Toxicity - Repeated Exposure	Category 2 (Liver, Respiratory system)	H373: May cause damage to organs through prolonged or repeated exposure.

Environmental Hazards

Chronic hazards to the aquatic environment	Category 2	H411: Toxic to aquatic life with long lasting effects.

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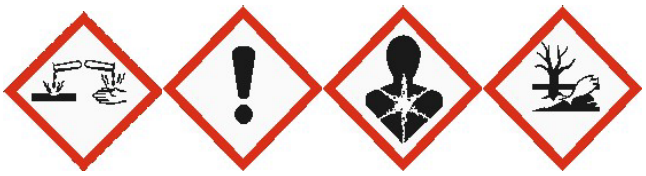
2.2 Label Elements

Contains: Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate
2-Phenoxyethyl acrylate
Tetrahydrofurfuryl acrylate
Oxybis(methyl-2,1-ethanediyl) diacrylate
hexamethylene diacrylate; hexane-1,6-diol diacrylate



Signal Word: Danger

Hazard Statement(s):
H315: Causes skin irritation.
H318: Causes serious eye damage.
H317: May cause an allergic skin reaction.
H360Df: May damage the unborn child. Suspected of damaging fertility.
H335: May cause respiratory irritation.
H373: May cause damage to organs through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention:
P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
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/ physician.

2.3 Other hazards

Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Exo-1,7,7trimethylbicycl o[2.2.1]hept-2yl acrylate	10 - <20%	5888-33-5	227-561-6	01-2119957862-25-XXXX;	No data available.	
2-Phenoxyethyl acrylate	10 - <20%	48145-04-6	256-360-6	01-2119980532-35-XXXX;	No data available.	
Tetrahydrofurfuryl acrylate	10 - <20%	2399-48-6	219-268-7	01-2120738396-46-XXXX;	No data available.	
Oxybis(methyl-2,1ethanediyl) diacrylate	10 - <20%	57472-68-1	260-754-3	01-2119484629-21-XXXX;	No data available.	
1-Vinylhexahydr o-2H-azepin-2-one	5 - <10%	2235-00-9	218-787-6	01-2119977109-27-XXXX;	No data available.	
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2aminoethanol	5 - <10%	67906-98-3		No data available.	No data available.	
Isodecyl acrylate	5 - <10%	1330-61-6	215-542-5	01-2119964031-47-XXXX;	No data available.	
2-Isopropyl9Hthioxanthen-9one	5 - <10%	5495-84-1	226-827-9	01-2120769513-49-XXXX;	No data available.	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	1 - <3%	75980-60-8	278-355-8	01-2119972295-29-XXXX;	No data available.	
2-phenoxyethyl prop-2-enoate	1 - <2.5%	56641-05-5	500-133-9	01-2120752382-57-XXXX;	No data available.	
phenyl bis(2,4,6trimethylbenzo yl)-phosphine oxide	1 - <5%	162881-26-7	423-340-5	01-2119489401-38-0001;	No data available.	

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2-Phenoxyethanol	1 - <3%	122-99-6	204-589-7	01-2119488943-21-XXXX;	No data available.	
hexamethylene diacrylate; hexane-1,6-diol diacrylate	0.1 - <1%	13048-33-4	235-921-9	01-2119484737-22-XXXX;	No data available.	
Tetrahydrofurfuryl alcohol	0.1 - <0.3%	97-99-4	202-625-6	01-2119968921-26-XXXX;	No data available.	
Cetrimonium chloride	0.01 - <0.1%	112-02-7	203-928-6	01-2119970558-23-XXXX;	Aquatic Toxicity (Acute): 10; Aquatic Toxicity (Chronic): 1	
hydroquinone	0.01 - <0.1%	123-31-9	204-617-8	01-2119524016-51-XXXX;	Aquatic Toxicity (Acute): 10; Aquatic Toxicity (Chronic): Aquatic Toxicity (Acute): 10; Aquatic Toxicity (Chronic): 10	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s). ##
This substance is listed as SVHC.

Classification

Chemical name	Classification	Notes
Exo-1,7,7-trimethylbicyclo[2.2.1]hept2-yl acrylate	Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; STOT SE: 3: H335; Skin Irrit.: 2: H315; Skin Sens.: 1A: H317; Eye Irrit.: 2: H319; STOT SE: 3: H335; Aquatic Chronic: 2: H411; Aquatic Acute: 1: H400; Aquatic Chronic: 1: H410;	No data available.
2-Phenoxyethyl acrylate	Classification: Skin Sens.: 1A: H317; Repr.: 2: H361d; Aquatic Chronic: 2: H411;	No data available.
Tetrahydrofurfuryl acrylate	Classification: Acute Tox.: 4: H302; Skin Corr.: 1C: H314; Skin Sens.: 1B: H317; Eye Dam.: 1: H318; Repr.: 1B: H360Df; Aquatic Chronic: 2: H411;	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	Classification: Skin Sens.: 1: H317; Eye Dam.: 1: H318; Skin Irrit.: 2: H315;	No data available.
1-Vinylhexahydro-2Hazepin-2-one	Classification: Acute Tox.: 4: H302; Eye Irrit.: 2A: H319; Skin Sens.: 1B: H317; STOT RE: 1: H372; Acute Tox.: 4: H312;	No data available.

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2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319;	No data available.
Isodecyl acrylate	Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; STOT SE: 3: H335; STOT SE: 3: H335; Eye Irrit.: 2: H319; Skin Irrit.: 2: H315; Skin Sens.: 1B: H317; Aquatic Chronic: 2: H411; Aquatic Chronic: 2: H411;	Note ANote A
2-Isopropyl-9Hthioxanthen-9-one	Classification: Repr.: 2: H361f; Aquatic Acute: 1: H400; Aquatic Chronic: 1: H410;	No data available.
Diphenyl(2,4,6trimethylbenzoyl)phosphin e oxide	Classification: Repr.: 2: H361f; Repr.: 2: H361f; Skin Sens.: 1B: H317; Aquatic Chronic: 2: H411;	No data available.
2-phenoxyethyl prop-2enoate	Classification: Skin Sens.: 1A: H317; Aquatic Chronic: 2: H411;	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	Classification: Skin Sens.: 1A: H317; Skin Sens.: 1A: H317; Aquatic Chronic: 4: H413; Aquatic Chronic: 4: H413;	No data available.
2-Phenoxyethanol	Classification: Eye Dam.: 1: H318; STOT SE: 3: H335; Acute Tox.: 4: H302; Eye Irrit.: 2: H319; Acute Tox.: 4: H302;	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	Classification: Skin Sens.: 1: H317; Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Eye Irrit.: 2: H319; Skin Sens.: 1: H317; Skin Irrit.: 2: H315; Aquatic Acute: 1: H400; Aquatic Chronic: 2: H411;	Note D
Tetrahydrofurfuryl alcohol	Classification: Repr.: 1B: H360Df; Eye Irrit.: 2: H319; Repr.: 1B: H360Df; Eye Irrit.: 2: H319;	No data available.
Cetrimonium chloride	Classification: Acute Tox.: 4: H302; Acute Tox.: 3: H311; Skin Corr.: 1C: H314; Eye Dam.: 1: H318; Aquatic Acute: 1: H400; Aquatic Chronic: 1: H410;	No data available.
hydroquinone	Classification: Carc.: 2: H351; Muta.: 2: H341; Eye Dam.: 1: H318; Skin Sens.: 1B: H317; Acute Tox.: 4: H302; Carc.: 2: H351; Eye Dam.: 1: H318; Acute Tox.: 4: H302; Skin Sens.: 1: H317; Muta.: 2: H341; Aquatic Acute: 1: H400; Aquatic Acute: 1: H400; Aquatic Chronic: 1: H410;	No data available.

CLP: Regulation No. 1272/2008.
The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

4.1 Description of necessary first-aid measures

General information: Get medical attention if symptoms occur.

Inhalation: In case of inhalation of spray mist: Move person into fresh air and keep at rest.

Skin Contact: Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

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Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.
Ingestion:	Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
Personal Protection for First-aid Responders:	CAUTION! First aid personnel must be aware of own risk during rescue! See Section 8 of the SDS for Personal Protective Equipment.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:	See section 11 of the SDS for additional information on health hazards.
Hazards:	See section 11 of the SDS for additional information on health hazards.

4.3 Indication of immediate medical attention and special treatment needed

Treatment:	Treat symptomatically.

SECTION 5: Firefighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.

5.1 Extinguishing media

Suitable extinguishing media:	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture:	During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire-fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Avoid breathing dust/fume/gas/mist/vapors/spray. Provide adequate ventilation.

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6.1.1 For non-emergency personnel:	Use personal protective equipment.
6.1.2 For emergency responders:	Warn everybody of potential hazards and evacuate if necessary. Use personal protective equipment.
6.2 Environmental Precautions:	Avoid release to the environment. Prevent entry into waterways, sewer, basements or confined areas. Contact local authorities in case of spillage to drain/aquatic environment. Do not contaminate water sources or sewer.
6.3 Methods and material for containment and cleaning up:	Prevent further leakage or spillage if safe to do so. Stop the flow of material, if this is without risk. Small Spillages: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Clean surface thoroughly to remove residual contamination. Large Spillages: Dike far ahead of larger spill for later recovery and disposal.
6.4 Reference to other sections:	See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling

Technical measures (e.g. Local and general ventilation):	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc. Provide easy access to water supply and eye wash facilities.
Safe handling advice:	Do not get in eyes. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.
Contact avoidance measures:	Contact with incompatible materials.

7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions:	Store locked up. Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials.
Safe packaging materials:	Suitable materials**:** Keep in original container.
7.3 Specific end use(s):	For industrial use only

SECTION 8: Exposure controls/personal protection

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Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

8.1 Control Parameters Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
hydroquinone	TWA	0.5 mg/m3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Workers	Eyes	Local effect;	No hazard identified
	General population	Dermal	Systemic, long-term; 0.83 mg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 1.45 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 4.9 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 1.39 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 0.83 mg/kg	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
2-Phenoxyethyl acrylate	Workers	Inhalation	Local, long-term; 77 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 12 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 3.5 mg/kg	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	General population	Eyes	Local effect;	No hazard identified
Tetrahydrofurfuryl acrylate	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
	General population	Inhalation	Systemic, long-term; 0.3 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 1.73 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	Medium hazard (no threshold derived)
	Workers	Dermal	Systemic, long-term; 4.9 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 0.18 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 1.75 mg/kg	Repeated dose toxicity
Oxybis(methyl-2,1-ethanediyl) diacrylate	Workers	Inhalation	Systemic, long-term; 24.48 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 7.24 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 2.77 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 2.08 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 1.66 mg/kg	Repeated dose toxicity

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1-Vinylhexahydro-2H-azepin-2one	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
Isodecyl acrylate	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Local, long-term; 37.5 mg/m3	irritation respiratory tract
2-Isopropyl-9H-thioxanthen-9one	Workers	Inhalation	Systemic, long-term; 0.73 mg/m3	developmental toxicity / teratogenicity
	Workers	Dermal	Systemic, long-term; 0.42 mg/kg	developmental toxicity / teratogenicity
	Workers	Eyes	Local effect;	No hazard identified
	General population	Eyes	Local effect;	No hazard identified
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Workers	Dermal	Systemic, long-term; 0.233 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 0.822 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	General population	Inhalation	Systemic, long-term; 0.145 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	General population	Dermal	Systemic, long-term; 0.0833 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 0.0833 mg/kg	Repeated dose toxicity
2-phenoxyethyl prop-2-enoate	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Local, long-term; 97 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 3.5 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 12 mg/m3	Repeated dose toxicity
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	General population	Inhalation	Systemic, long-term; 1.93 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 2.9 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 11.75 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	General population	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Systemic, long-term; 21 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 1.67 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 1.67 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 1.67 ng/kg	
	General population	Inhalation	Systemic, long-term; 2.61 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 3.33 mg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 2.92 mg/m3	
	General population	Inhalation	Systemic, long-term; 3.92 mg/m3	Repeated dose toxicity

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	Workers	Dermal	Systemic, long-term; 4.67 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 4.2 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 7.84 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, short-term; 1.67 mg/kg	
	Workers	Inhalation	Systemic, short-term; 16.46 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 2.92 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, short-term; 7.84 mg/m3	
	Workers	Inhalation	Systemic, long-term; 16.46 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 1.93 mg/m3	
	Workers	Inhalation	Systemic, long-term; 14.8 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 1.5 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 3 mg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 5.2 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 3.92 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 1.5 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, short-term; 4.67 mg/kg	
	Workers	Dermal	Systemic, short-term; 3.33 mg/kg	
2-Phenoxyethanol	General population	Inhalation	Local, long-term; 2.41 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 2.41 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 20.83 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 5.7 mg/m3	
	General population	Eyes	Local effect;	Low hazard (no threshold derived)
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
	General population	Oral	Systemic, long-term; 9.23 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 9.23 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 10.42 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 5.7 mg/m3	
hexamethylene diacrylate; hexane-1,6-diol diacrylate	General population	Eyes	Local effect;	Low hazard (no threshold derived)
	General population	Inhalation	Systemic, long-term; 7.2 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 24.5 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)

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	Workers	Dermal	Systemic, long-term; 3.33 mg/kg	Carcinogenicity
	Workers	Eyes	Local effect;	Medium hazard (no threshold derived)
	Workers	Inhalation	Systemic, long-term; 2.1 mg/m3	Carcinogenicity
	General population	Oral	Systemic, long-term; 0.6 mg/kg	Carcinogenicity
	General population	Dermal	Systemic, long-term; 1.66 mg/kg	Carcinogenicity
	General population	Dermal	Systemic, long-term; 1.66 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 2.77 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 2.1 mg/kg	Repeated dose toxicity
Tetrahydrofurfuryl alcohol	Workers	Inhalation	Systemic, long-term; 1.4 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 0.25 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
	General population	Oral	Systemic, long-term; 0.175 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 0.5 mg/kg	Repeated dose toxicity
	General population	Eyes	Local effect;	Low hazard (no threshold derived)
	Workers	Dermal	Systemic, long-term; 1 mg/kg	Repeated dose toxicity
Cetrimonium chloride	General population	Inhalation	Systemic, long-term; 0.98 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 3.32 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
	Workers	Eyes	Local effect;	Medium hazard (no threshold derived)
	General population	Dermal	Systemic, long-term; 2.83 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 2.83 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 4.7 mg/kg	Repeated dose toxicity
hydroquinone	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
	General population	Inhalation	Systemic, long-term; 1.05 mg/m3	Carcinogenicity

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PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	soil	0.029 mg/kg	
	freshwater sediment	0.145 mg/kg	
	Sewage treatment plant	2 mg/l	
	Aquatic (freshwater)	0.001 mg/l	
	Marine sediments	0.015 mg/kg	
	Aquatic (marine water)	0 mg/l	
2-Phenoxyethyl acrylate	Sewage treatment plant	1.77 mg/l	
	Aquatic (marine water)	0.2 µg/l	
	freshwater sediment	0.02 mg/kg	
	Marine sediments	0.002 mg/kg	
	Aquatic (freshwater)	2 µg/l	
Tetrahydrofurfuryl acrylate	soil	0.002 mg/kg	
	freshwater sediment	0.021 mg/kg	
	Aquatic (marine water)	0.392 µg/l	
	Sewage treatment plant	2.637 mg/l	
	Marine sediments	0.002 mg/kg	
	Aquatic (freshwater)	3.92 µg/l	
Oxybis(methyl-2,1-ethanediyl) diacrylate		0.003 mg/l	
	Aquatic (marine water)	0 mg/l	
	soil	0.001 mg/kg	
	Sewage treatment plant	100 mg/l	
	freshwater sediment	0.009 mg/kg	
Isodecyl acrylate	soil	0.064 mg/kg	
	Marine sediments	5.904 mg/kg	
	freshwater sediment	59.039 mg/kg	
	Sewage treatment plant	34 mg/l	
	Aquatic (marine water)	8.49 µg/l	
	Aquatic (freshwater)	84.9 µg/l	
2-Isopropyl-9H-thioxanthen-9one	freshwater sediment	0.013 mg/kg	
	Sewage treatment plant	100 mg/l	
	Aquatic (freshwater)	0 mg/l	
	Marine sediments	0.001 mg/kg	
	Aquatic (marine water)	0 mg/l	
	soil	0.003 mg/kg	
	Predator	0.333 mg/kg	Oral
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Marine sediments	0.0115 mg/kg	
	Fresh water	0.00353 mg/l	
	Aquatic (marine water)	0.14 µg/l	
	Marine water	0.00353 mg/l	
	Aquatic (freshwater)	1.4 µg/l	
	Intermittent release	0.0353 mg/l	
	soil	0.0222 mg/kg	
	Sediment-fresh water	0.29 mg/kg	

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	freshwater sediment	0.115 mg/kg	
	Soil	0.0557 mg/kg	
2-phenoxyethyl prop-2-enoate	freshwater sediment	0.053 mg/kg	
	Aquatic (freshwater)	2 µg/l	
	soil	0.009 mg/kg	
	Sewage treatment plant	1.77 mg/l	
	Aquatic (marine water)	0.2 µg/l	
	Marine sediments	0.005 mg/kg	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	soil	20 mg/kg	
	Aquatic (freshwater)	0.8 µg/l	
		1 µg/l	
	Aquatic (marine water)	1 µg/l	
	Marine sediments	0.712 mg/kg	
	Sewage treatment plant	1 mg/l	
	Aquatic (marine water)	9 ng/l	
	freshwater sediment	0.064 mg/kg	
		0.712 mg/kg	
	Marine sediments	0.0064 mg/kg	
	Aquatic (freshwater)	90 ng/l	
	soil	0.0128 mg/kg	
	Aquatic (marine water)	0.8 µg/l	
2-Phenoxyethanol	soil	1.31 mg/kg	
	Aquatic (marine water)	0.094 mg/l	
	Sewage treatment plant	36 mg/l	
	Aquatic (freshwater)	0.943 mg/l	
	freshwater sediment	7.237 mg/kg	
	Marine sediments	0.724 mg/kg	
hexamethylene diacrylate; hexane-1,6-diol diacrylate	soil	0.094 mg/kg	
	Aquatic (freshwater)	0.007 mg/l	
	Marine sediments	0.049 mg/kg	
	freshwater sediment	0.493 mg/kg	
	Sewage treatment plant	2.7 mg/l	
	Aquatic (marine water)	0.001 mg/l	
Tetrahydrofurfuryl alcohol	soil	0.6 mg/kg	
	Aquatic (freshwater)	1.9 mg/l	
	Aquatic (marine water)	0.19 mg/l	
	Sewage treatment plant	10 mg/l	
	freshwater sediment	8.6 mg/kg	
	Marine sediments	0.86 mg/kg	
Cetrimonium chloride	soil	7 mg/kg	
	Sewage treatment plant	0.4 mg/l	
	Marine sediments	0.927 mg/kg	
	freshwater sediment	9.27 mg/kg	
	Aquatic (marine water)	0 mg/l	

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	Aquatic (freshwater)	0.001 mg/l	
hydroquinone		0.57 µg/l	
	Marine sediments	0.00049 mg/kg	
	soil	0.00064 mg/kg	
	Sewage treatment plant	0.71 mg/l	
	freshwater sediment	0.0049 mg/kg	
	Aquatic (marine water)	0.057 µg/l	

8.2 Exposure controls

Appropriate Engineering Controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc. Provide easy access to water supply and eye wash facilities.

Monitoring methods: BS EN 14042:2003: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Individual protection measures, such as personal protective equipment

General information: Follow training instructions when handling this material. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection: Safety goggles. EN 166.

Hand Protection: Protective gloves should be used if there is a risk of direct contact or splash.(EN374), Chemical resistant gloves required for prolonged or repeated contact., Butyl rubber (EN374), Glove thickness: > 0.70 mm, Break-through time: > 480 min, Glove thickness: > 0.35 mm, Break-through time: > 60 min, Risk of splashes:, Nitrile rubber., Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable., The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Skin and Body Protection: Safety clothes : long sleeved clothing EN13688

Respiratory Protection: Under normal conditions of use, respirator protection is not required.

Do not get in eyes. Observe good industrial hygiene practices. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after

Hygiene measures:	handling the product. Contaminated work clothing should not be allowed out of the workplace.
Environmental Controls:	Do not empty into drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Black
Odor:	Sweetish
Odor Threshold:	No data available.
pH:	substance/mixture is non-soluble (in water)
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	No data available.
Evaporation Rate:	No data available.
Flammability:	Not flammable.

Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.

Vapor pressure:	No data available.
Relative vapor density:	No data available.
Density:	No data available.
Relative density:	1.0608
Solubility(ies)	
Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (noctanol/water):	Not applicable Mixture
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity	
Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

9.2 Other information

VOC Content: EC Directive 1999/13: 13.12 g/l ~1.31 % (calculated)

SECTION 10: Stability and reactivity

10.1 Reactivity: Material is stable under normal conditions.

10.2 Chemical Stability: Material is stable under normal conditions.

10.3 Possibility of hazardous reactions: Not known.

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10.4	**Conditions to avoid:**	Avoid heat or contamination.
10.5	**Incompatible Materials:**	None known.
10.6	**Hazardous Decomposition Products:**	By heating and fire, harmful vapors/gases may be formed.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Causes skin irritation. May cause an allergic skin reaction.
Eye contact:	Causes serious eye damage.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product:	ATEmix: 3,341.94 mg/kg
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	LD 50 (Rat): 5,750 mg/kg LD 50 (Rat): 4,350 mg/kg
2-Phenoxyethyl acrylate	LD 50 (Rat): 5,000 mg/kg Experimental result, Key study
Tetrahydrofurfuryl acrylate	LD50 (rat): 928 mg/kg LD 50 (Rat): 928 mg/kg LD 50 (Rat): 882 mg/kg LD 50 (Rat): 1,002 mg/kg
Oxybis(methyl-2,1ethanediyl) diacrylate	LD 50 (Rat): 4,270 mg/kg Experimental result, Key study
1-Vinylhexahydro-2Hazepin-2-one	LD 50 (Rat): 1,732 mg/kg Experimental result, Key study
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9Hthioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	ATE: 1,394 mg/kg

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hexamethylene diacrylate; hexane-1,6diol diacrylate	LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study
Tetrahydrofurfuryl alcohol	LD 50 (Rat): > 2,000 mg/kg
Cetrimonium chloride	LD 50 (Rat): 861 mg/kg Experimental result, Key study
hydroquinone	LD 50 (Rat): 367.3 mg/kg Key study

Dermal

Product:	ATEmix 18,167.25 mg/kg
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]h ept-2-yl acrylate	LD 50 (Rabbit): > 3,000 mg/kg Experimental result, Key study
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	LD 50 (Rabbit): > 2,000 mg/kg Experimental result, Key study
1-Vinylhexahydro-2Hazepin-2-one	LD 50 (Rabbit): 1,700 mg/kg Experimental result, Key study
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9Hthioxanthen-9-one	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2 enoate	No data available.
Phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6 diol diacrylate	LD 50 (Rabbit): 3,650 mg/kg Experimental result, Key study
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	LD 50 (Rabbit): 528 mg/kg Read-across from supporting substance (structural analogue or surrogate), Key study
hydroquinone	LD 50 (Rabbit): > 2,000 mg/kg Experimental result, Key study

Inhalation

Product:	Not classified for acute toxicity based on available data.
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hep t-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.

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Oxybis(methyl-2,1ethanediyl) diacrylate	LC 0 (Rat, 7 h): 0.41 mg/l Vapor, Read-across from supporting substance (structural analogue or surrogate), Key study
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ster, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	LC 50 (Rat, 8 h): > 1.19 mg/l Vapor, Read-across from supporting substance (structural analogue or surrogate), Key study
2-Isopropyl-9H thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	
2-Phenoxyethanol	LC 50: 1,000 mg/m3 Aerosol
hexamethylene diacrylate; hexane-1,6diol diacrylate	LC 0 (Rat, 7 h): 0.41 mg/l Vapor, Experimental result, Key study
Tetrahydrofurfuryl alcohol	LC 50: 751 ppm Vapor
Cetrimonium chloride	No data available.
hydroquinone	No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	NOAEL (Rat(Female, Male), Oral, 28 - 53 d): 100 mg/kg
2-Phenoxyethyl acrylate	NOAEL (Rat(Female, Male), Oral, 43 - 53 d): 300 mg/kg
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg
1-Vinylhexahydro-2Hazepin-2-one	NOAEL (Rat(Female, Male), Inhalation): 0.058 mg/l
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	NOAEL (Rat(Female, Male), Inhalation): 0.075 mg/l NOAEL (Rat(Female, Male), Inhalation): 0.226 mg/l
2-Isopropyl-9-Hthioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	NOAEL (Rat(Female, Male), Oral, 64 - 91 d): 100 mg/kg
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.

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2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	NOAEL (Rat(Male), Oral, 91 - 93 d): 500 ppm(m) NOAEL (Rat(female), Oral, 91 - 93 d): 1,000 ppm(m)
Cetrimonium chloride	NOAEL (Rabbit(Female, Male), Dermal, 6.5 - 7 h): 10 mg/kg
hydroquinone	No data available.

Skin Corrosion/Irritation: Irritating.

Product: The health hazard evaluation is based on the toxicological properties of a similar material.

Components:

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	Not irritant Experimental result, Supporting study
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	in vivo Category 2 Experimental result, Supporting study
1-Vinylhexahydro-2H-azepin-2-one	in vivo Not irritant Experimental result, Key study
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9-Hthioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	in vivo Not irritant Experimental result, Key study
2-phenoxyethyl prop-2-enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
2-Phenoxyethanol	in vivo Not irritant Experimental result, Not specified
hexamethylene diacrylate; hexane-1,6diol diacrylate	in vivo Category 2 Experimental result, Key study
Tetrahydrofurfuryl alcohol	in vivo Not irritant Experimental result, Key study
Cetrimonium chloride	Irritating
hydroquinone	in vivo Not irritant Experimental result, Weight of Evidence study

Serious Eye Damage/Eye Irritation:

Product: Causes serious eye damage.

Components:

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Exo-1,7,7-trimethylbicyclo[2.2.1]h ept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	in vivo Category 1 OECD GHS
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2aminoethanol	No data available.
Isodecyl acrylate	Mildly Irritating
2-Isopropyl-9H-thioxanthen-9-one	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)phosphine oxide	
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	Irritating
Tetrahydrofurfuryl alcohol	Severely Irritating in vivo Irritating EU
Cetrimonium chloride	Irritating
hydroquinone	No data available.

Respiratory or Skin Sensitization:

Product: May cause an allergic skin reaction.

Components:

Exo-1,7,7-trimethylbicyclo[2.2.1]h ept-2-yl acrylate	Skin sensitization:, in vivo (Mouse): Sensitising
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.

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2-phenoxyethyl prop-2 enoate	No data available.
2-Phenoxyethanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
hexamethylene diacrylate; hexane-1,6diol diacrylate	Skin sensitization:, in vivo (Guinea pig): Sensitising
Tetrahydrofurfuryl alcohol	Skin sensitization:, in vivo (Mouse): Non sensitising
Cetrimonium chloride	No data available.
hydroquinone	Skin sensitization:, in vivo (Guinea pig): Sensitising

Germ Cell Mutagenicity

Product:	Based on available data, the classification criteria are not met.
In vitro	
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hep t-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2-Hazepin-2-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.
In vivo	
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hep t-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.

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Oxybis(methyl-2,1 ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate phenyl bis(2,4,6trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

Carcinogenicity

Product:	Based on available data, the classification criteria are not met.
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hep t-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2Hazepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9Hthioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis (2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.

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hydroquinone	No data available.

Reproductive toxicity

Product:	May damage the unborn child. Suspected of damaging fertility.
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6trimethylbenzoyl) phosphine oxide	No data available.
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	May cause respiratory irritation.
Components:	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.

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Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	

Target Organs: Liver, Respiratory system

Aspiration Hazard

Product: Based on available data, the classification criteria are not met.

Components:

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.

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Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	LC 50 (Danio rerio, 96 h): 0.704 mg/l (semi-static) Experimental result, Key study
2-Phenoxyethyl acrylate	LC 50 (Leuciscus idus, 96 h): 10 mg/l (Static) Experimental result, Key study
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	LC 50 (Leuciscus idus, 96 h): 2.2 - 4.64 mg/l (Static) Experimental result, Key study
1-Vinylhexahydro-2H-azepin-2-one	LC 50 (Danio rerio, 96 h): 318 mg/l (Static) Experimental result, Key study NOAEL (Danio rerio, 96 h): 215 mg/l (Static) Experimental result, Key study
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
hydroquinone	No data available.

Other hazards

Product: The carbon black in this product is embedded in a matrix which minimizes the likelihood of exposure to the pigment.;

SECTION 12: Ecological information

General information: Contains a substance which causes risk of hazardous effects to the environment.

12.1 Toxicity

Acute toxicity

Remarks:

Based on available data, the classification criteria are not met.

Fish

Product: No data available.

Components

2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	LC 50 (Oncorhynchus nerka, 8 h): 333 mg/l Experimental result, Not specified LC 50 (Pimephales promelas, 96 h): 344 mg/l (flow-through) Experimental result, Key study

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Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	LC 50 (Oryzias latipes, 96 h): > 101 mg/l (semi-static) Experimental result, Key study
Cetrimonium chloride	LC 50 (Danio rerio, 96 h): 0.19 - 0.29 mg/l (Static) Experimental result, Key study
hydroquinone	LC 50 (Oncorhynchus mykiss, 96 h): 0.638 mg/l (flow-through) Experimental result, Key study

Aquatic Invertebrates

Product:	No data available.

Components

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	EC 50 (Daphnia magna, 48 h): 1.21 mg/l (Static) Experimental result, Key study
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	EC 50 (Daphnia magna, 48 h): 22.3 mg/l (Static) Experimental result, Key study
1-Vinylhexahydro-2H-azepin-2-one	EC 50 (Daphnia magna, 48 h): > 100 mg/l (Static) Experimental result, Key study
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	EC 50 (Daphnia magna, 48 h): 3.53 mg/l (Static) Experimental result, Key study
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	LC 50 (Daphnia magna, 48 h): 488 mg/l (Static) experimental result Experimental result, Supporting study
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	EC 50 (Daphnia magna, 48 h): > 91.7 mg/l (semi-static) Experimental result, Key study experimental result
Cetrimonium chloride	EC 50 (Daphnia magna, 48 h): +/- 0.09 mg/l (Static) Read-across from supporting substance (structural analogue or surrogate), Key study
hydroquinone	EC 50 (Daphnia magna, 48 h): 0.134 mg/l (semi-static) experimental result Experimental result, Key study

Toxicity to Aquatic Plants

SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Product:	No data available.

Components

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9Hthioxanthen-9-one	No data available.
Diphenyl(2,4,6trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

Toxicity to microorganisms

Product:	No data available.

Components

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,10ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	EC50 (Pseudomonas putida (bacteria), 0.5 h): > 10,000 mg/l (QSAR)
2-Isopropyl-9H-	No data available.

thioxanthen-9-one	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide	EC50 (Bacteria, 3 h): > 100 mg/l (OECD-Guideline No.209; 88/302/EEC C.11)
2-Phenoxyethanol	EC50 (waste sludge, 17 h): > 880 mg/l (OECD-Guideline No.209; 88/302/EEC C.11)
hexamethylene diacrylate; hexane-1,6diol diacrylate	EC50 (0.5 h): ca. 270 mg/l (OECD-Guideline No.209; 88/302/EEC C.11)
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

Chronic Toxicity

Remarks:

Toxic to aquatic life with long lasting effects.

Fish

Product:	No data available.

Components

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.

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Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

2-Phenoxyethanol	NOAEL (Pimephales promelas, 34 d): 23 mg/l (flow-through) experimental result Experimental result, Key study
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

Aquatic Invertebrates

Product:	No data available.

Components

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2-Hazepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

Toxicity to Aquatic Plants

Product:	No data available.

Components

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.

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Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

12.2 Persistence and Degradability

Biodegradation

Product:	No data available.
Components	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	(28 d): 90 - 100 % Detected in water. Experimental result, Key study
1-Vinylhexahydro-2H-azepin-2-one	(28 d): 30 - 40 % Detected in water. Experimental result, Key study
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	(15 d): 70 - 80 % Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study

SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	(28 d): > 0 - 10 % Detected in water. Experimental result, Key study
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
2-Phenoxyethanol	90 % Detected in water. Experimental result, Key study
hexamethylene diacrylate; hexane-1,6diol diacrylate	(28 d): 60 - 70 % Detected in water. Experimental result, Key study
Tetrahydrofurfuryl alcohol	(60 d): 0 % Detected in water. Experimental result, Supporting study (28 d): 92 % Experimental result, Key study Detected in water.
Cetrimonium chloride	(28 d): 93.5 % Detected in water. Experimental result, Key study
hydroquinone	(14 d): 70 % Detected in water. Experimental result, Supporting study

BOD/COD Ratio

Product	No data available.

Components

Exo-1,7,7-trimethylbicyclo[2.2.1]hep t-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis (2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

12.3 Bioaccumulative potential

Product:	No data available.
Components	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis (methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	Cyprinus carpio, Bioconcentration Factor (BCF): 53 - 72 Aquatic sediment Experimental result, Key study
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	Bioconcentration Factor (BCF): 0.35 Aquatic sediment Estimated by calculation, Key study
hexamethylene diacrylate; hexane-1,6diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	Bioconcentration Factor (BCF): 70.8 Aquatic sediment Estimated by calculation, Key study
hydroquinone	No data available.

12.4 Mobility in soil

Product:	No data available.
Components	
Exo-1,7,7-trimethylbicyclo[2.2.1]hept2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,1-6hexanediyl ester, polymer with 2-aminoethanol	No data available.
Isodecyl acrylate	No data available.

2-Isopropyl-9H-thioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

12.5 Results of PBT and vPvB assessment

Product: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components

Exo-1,7,7trimethylbicyclo [2.2.1]hept-2-yl acrylate	No data available.
2-Phenoxyethyl acrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Oxybis(methyl-2,1ethanediyl) diacrylate	No data available.
1-Vinylhexahydro-2H-azepin-2-one	No data available.
2-Propenoic acid ,16-hexanediyl ester, polymer with 2aminoethanol	No data available.
Isodecyl acrylate	No data available.
2-Isopropyl-9Hthioxanthen-9-one	No data available.
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-phenoxyethyl prop-2-enoate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl) phosphine oxide	No data available.
2-Phenoxyethanol	No data available.
hexamethylene diacrylate; hexane1,6-diol diacrylate	No data available.
Tetrahydrofurfuryl alcohol	No data available.
Cetrimonium chloride	No data available.
hydroquinone	No data available.

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12.6 Other adverse effects: Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: Disposal considerations (including disposal of contaminated containers or packaging) Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Disposal methods: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Since emptied containers retain product residue, follow label warnings even after container is emptied.

Contaminated Packaging: Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1 UN number or ID number:	UN 3082
14.2 UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
14.3 Transport Hazard Class(es)	
Class:	9
Label(s):	9
Hazard No. (ADR):	90
Tunnel restriction code:	(-)
14.4 Packing Group:	III
Limited quantity	5.00L
Excepted quantity	E1
14.5 Environmental Hazards:	Yes
14.6 Special precautions for user:	SPECIAL PROVISION 375 (<= 5kg/<= 5L)

RID

14.1 UN number or ID number:	UN 3082
14.2 UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
14.3 Transport Hazard Class(es)	
Class:	9
Label(s):	9
14.4 Packing Group:	III
14.5 Environmental Hazards:	Yes
14.6 Special precautions for user:	–

ADN

14.1 UN number or ID number:	UN 3082

SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

14.2 UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
14.3 Transport Hazard Class(es)	
Class:	9
Label(s):	9
14.4 Packing Group:	III
14.5 Environmental Hazards:	Yes
14.6 Special precautions for user:	SPECIAL PROVISION 375 (<= 5kg/<= 5L)

IMDG

14.1 UN number or ID number:	UN 3082
14.2 UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
14.3 Transport Hazard Class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-F
14.4 Packing Group:	III
<03EHS_L_TEXT(ZAGFA-ARI-S-100017321)[D:Limited quantity]>	5.00L
Excepted quantity	E1
14.5 Environmental Hazards:	Environmentally Hazardous
14.6 Special precautions for user:	CODE 2.10.2.7 if packaging <= 5L or <= 5kg

IATA

14.1 UN number or ID number:	UN 3082
14.2 Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.(Acrylate)
14.3 Transport Hazard Class(es):	
Class:	9
Label(s):	9MI
14.4 Packing Group:	III
Excepted quantity	E1
14.5 Environmental Hazards:	Yes
14.6 Special precautions for user:	SPECIAL PROVISION A197 if packaging <= 5L or <= 5kg
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: not applicable

SECTION 15: Regulatory information

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

EU Regulations

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC): None present or none present in regulated quantities.

SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

EU. REACH Annex XIV, Substances Subject to Authorization: None present or none present in regulated quantities.

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: None present or none present in regulated quantities.

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: None present or none present in regulated quantities.

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended: None present or none present in regulated quantities.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended: None present or none present in regulated quantities.

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:

Classification	Lower-tier Requirements	Upper-tier Requirements
E2. Hazardous to the aquatic environment	200 t	500 t

15.2 Chemical safety assessment: Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Section(s) changed compared to the previous issue: 2, 3.

Abbreviations and acronyms:

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ADNR	Accord européen relatif au transport international des marchandises Dangereuses par la Rhin
AGW	Arbeitsplatzgrenswerte (DE)
ATEmix	Acute toxicity estimate of the mixture
CLP	Classification, Labelling and Packaging of substances and mixtures
CMR	carcinogenicity, mutagenicity and toxicity for reproduction
DNEL	Derived No Effect Level
EC0	Effective Concentration 0%
EC5	Effective Concentration 5%
EC10	Effective Concentration 10%

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Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

EC50	Median Effective Concentration
EC100	Effective Concentration 100%
EH40 WEL	Workplace Exposure Limit (GB)
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IC50	inhibitory concentration 50%
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IUCLID	International Uniform ChemicaL Information Database
LC50	Lethal Concentration 50%
LC100	Lethal Concentration 100%
LOAEL	Lowest Observed Adverse Effect Level
LDL0	Lethal Dose (minimum found to be lethal)
LD50	Lethal Dose 50%
MAC	Maximaal Aanvaardbare Concentratie (NL)
MAK	Maximale Arbeitsplatz-Konzentration
NOAEL	No Observed Adverse Effect Level
NOEL	No Observed Effect Level
NOEC	No Observed Effect Concentration
OEL	Occupatianal Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
STEL	Short Term Exposure Limit
TLV	Treshold Limit Value
TRGS900	Arbeitsplatzgrenswerte (DE)
TWA	Time Weighted Average
VOC	Volatile Organic Compound
vPvB	very Persistent and very Bioaccumulative substance

Notes:

Isodecyl acrylate	Note A	Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.
	Note A	Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.

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hexamethylene diacrylate; hexane1,6-diol diacrylate	Note D	Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

Key literature references and sources for data: Safety Data Sheet from the supplier.
ECHA

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 as amended.	**Classification procedure**
Skin irritation, Category 2	Calculation method
Serious eye damage, Category 1	Calculation method
Skin sensitizer, Category 1	Calculation method
Toxic to reproduction, Category 1B	Calculation method
Specific Target Organ Toxicity - Single Exposure, Category 3	Calculation method
Specific Target Organ Toxicity - Repeated Exposure, Category 2	Calculation method
Chronic hazards to the aquatic environment, Category 2	Calculation method

Wording of the statements in section 2 and 3

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
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.

SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

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.

Training information: Follow training instructions when handling this material.

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Safe Use of Mixtures Information (SUMI)

UV Inks

Disclaimer	
This SUMI is a generic document for communicating conditions of safe use of a product in response to the REACH obligation.This document relates only to conditions of safe use and is not specific to a product. By adding this SUMI to a specific product Safety Data Sheet (SDS), the importer/formulator declares that the mixture can safely be used following the instructions below. Following occupational health legislation, the employer of workers remains responsible for communicating relevant use information to employees. When developing workplace instructions foremployees, SUMI Sheets should always be considered in combination with the SDS and the label of the product. Derived No Effect Levels (DNEL) and Predicted No Effect Concentration (PNEC) values of substances derived from the Chemical Safety Assessment (CSA) will be given in section 8 of the SDS.The REACH registration numbers, where applicable, complete an extended product SDS.	
Operational conditions	
Max Duration	Up to 8 h/d
Frequency of exposure	< 240 d/y
Physical state	liquid
Process conditions	Covers use at ambient temperatures. Adequate ventilation should be provided so that exposure limits are not exceeded. As a rule, at least 10 air changes per hour are recommended at the workplace. Avoid contact with skin and eyes. Regular cleaning of equipment, work area and clothing. Supervision in place to check that Risk Management Measures (RMM's) in place are being correctly used and Occupational Conditions (OC's) followed.
Risk management measures	
Conditions and measures related to Personal Protection Equipment (PPE), hygiene and health evaluation	People working with this product should get instructions before use. This product should only be used in an industrial workplace. Wear safety glasses with side shields (or goggles). Chemical goggles are recommended. Wear chemical-resistant gloves and protective clothing. See Section 8 of the SDS for Personal Protective Equipment. Eye wash station and emergency showers are recommended. Avoid breathing mists or vapors. Avoid contact with eyes, skin, and clothing. Training of worker in relation to proper use and maintenance of the PPE must be ensured.

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Good practice advice

Use personal protective equipment as required.
Wash hands before breaks and immediately after handling the product.
Handle in accordance with good industrial hygiene and safety practice.
Use only with adequate ventilation.
Do not eat, drink or smoke when using the product.
Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store at room temperature in the original container.

Environmental Precautions

Do not allow to enter drains, sewers or watercourses.
Dispose of waste and residues in accordance with local authority requirements.
Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Use descriptors

IS - Use at industrial sites.
SU7 - Printing and reproduction media.
PC18 - Inks and toners
PROC3 - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition.
PROC10 - Roller application or brushing.
PROC28 - Manual maintenance (cleaning and repair) of machinery ERC5
- Use at industrial site leading to inclusion into/onto article.

Additional information on product composition

In section 2 of the SDS as well as on the label, the classification of the mixture is provided.
All ingredients contributing to the classification are stated in Section 3 of the SDS.
Relevant limit values of ingredients on which the exposure assessment is based, are listed in section 8 of the SDS.