SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier

Product name: AJ UV G5 FA RTR MAGENTA INK **Product No.:** 000001014382

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

Identified uses: Printer ink

Uses advised against: Do not use for private purposes (household). Do not use for products which come into direct contact with food stuffs. Do not use for products which come into direct contact with the skin.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Agfa Graphics NV
Septestraat 27
2640 Mortsel
Belgium

Telephone: +32 3 4442111
Fax: +32 3 4447094

E-mail: electronic.sds@agfa.com

National Supplier

Agfa-Gevaert Ltd.
Vantage West
Great West Road
Brentford, Middlesex TW8 9AX
United Kingdom

Telephone: +44 (0)20 8 231 4616
Fax: +44 (0)20 8 231 4951

E-mail: electronic.sds@agfa.com

1.4 Emergency telephone number:

Emergency telephone number (Belgium) : +32 3 4443333 (24h/24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Classification according to Regulation (EC) No 1272/2008 as amended.

Health Hazards

Specific Target Organ Toxicity - Repeated Exposure	Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Skin irritation	Category 2	H315: Causes skin irritation.

Serious eye damage	Category 1	H318: Causes serious eye damage.
Skin sensitizer	Category 1A	H317: May cause an allergic skin reaction.
Specific Target Organ Toxicity - Single Exposure	Category 3	H335: May cause respiratory irritation.

Environmental Hazards

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

2.2 Label Elements

Contains:

Isobornyl acrylate
Oxybis(methyl-2,1-ethanediyl) diacrylate
Phenoxyethylacrylate
N-vinyl caprolactam
Isodecyl acrylate

Signal Words: Danger

Hazard Statement(s):

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
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.

Target Organs:

Liver

Precautionary Statement

Prevention:

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/doctor/…

2.3 Other hazards

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccummulative) criteria

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: No data available.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Isobornyl acrylate	10 - <20%	5888-33-5	227-561-6	01-2119957862-25-XXXX	No data available.	
Oxybis(methyl-2,1-ethanediyl) diacrylate	10 - <20%	57472-68-1	260-754-3	01-2119484629-21-XXXX	No data available.	
Tetrahydrofurfuryl acrylate	10 - <20%	2399-48-6	219-268-7	No data available.	No data available.	
Phenoxyethyla crylate	10 - <20%	48145-04-6		01-2119980532-35-XXXX	No data available.	
N-vinyl caprolactam	5 - <10%	2235-00-9		01-2119977109-27-XXXX	No data available.	
Isodecyl acrylate	5 - <10%	1330-61-6		01-2119964031-47-XXXX	No data available.	
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	1 - <5%	67906-98-3		No data available.	No data available.	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	1 - <5%	162881-26-7	423-340-5	No data available.	No data available.	
diphenyl(2,4,6	1 - <3%	75980-60-8	278-355-8	01-	No data	

-trimethylbenzoyl)phosphine oxide				2119972295-29-XXXX	available.	
Hexamethylene diacrylate	0.1 - <1%	13048-33-4		01-2119484737-22-XXXX	No data available.	

* 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).
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Classification	Notes
Isobornyl acrylate	STOT SE: 3: H335 Aquatic Chronic: 2: H411 Skin Irrit.: 2: H315 Eye Irrit.: 2: H319	Note A
Oxybis(methyl-2,1-ethanediyl) diacrylate	Skin Sens.: 1: Eye Dam.: 1: Skin Irrit.: 2:	
Tetrahydrofurfuryl acrylate	Skin Irrit.: 2: H315 Eye Irrit.: 2: H319	
Phenoxyethylacrylate	Skin Sens.: 1A: H317 Aquatic Chronic: 2: H411	
N-vinyl caprolactam	Acute Tox.: 4: H302 Eye Irrit.: 2: H319 Skin Sens.: 1B: H317 STOT RE: 1: H372	
Isodecyl acrylate	No data available.	
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	Skin Irrit.: 2: H315 Eye Irrit.: 2: H319	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Skin Sens.: 1: H317 Aquatic Chronic: 4: H413	No data available.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Repr.: 2: H361f Aquatic Chronic: 2: H411	No data available.
Hexamethylene diacrylate	No data available.	

CLP: Regulation No. 1272/2008.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Move to fresh air.

Eye contact: Rinse immediately with plenty of water.

Skin Contact: Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: See section 11 of the SDS for additional information on health hazards.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No data available.

Treatment: Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

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

5.1 Extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials. Use fire-extinguishing media appropriate for surrounding materials.

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: Put on protective equipment before entering danger area.

6.2 Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

6.4 Reference to other sections: For personal protection see section 8. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. Store in original tightly closed container.

7.3 Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Biological Limit Values

None.

8.2 Exposure controls

Appropriate Engineering Controls: Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

General information: 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. Wear goggles/face shield.

Skin protection

Hand Protection: Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butylrubber (thickness >= 0.70 mm, breakthrough time > 480 min).(EN 374). The use of protective gloves should conform to the specifications of EC directive 89/686/EC and the resultant standard EN374.
Additional advice: The data are based on own tests, literature data and information of glove manufacturers or derived from similar substances. Because several factors may influence these properties (eg temperature), one should take into account the fact that the life of a chemical gloves in practice may be considerably shorter than indicated by the permeation test. The high diversity of types of use are prescribed by the manufacturer.

Other: Safety clothes : long sleeved clothing EN13688

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

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:	Magenta
Odor:	Sweetish smell
Odor Threshold:	No data available.
pH:	Not applicable
Freezing point:	< 0 °C
Boiling Point:	> 100 °C
Flash Point:	> 100 °C
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Relative density:	1.058 (Literature.)
Solubility(ies)	
Solubility in Water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

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:	No data available.
10.4 Conditions to avoid:	Avoid heat or contamination.
10.5 Incompatible Materials:	Strong acids.
10.6 Hazardous Decomposition Products:	No data available.

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.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Skin Contact:	Moderately irritating to skin with prolonged exposure.
Eye contact:	Eye contact is possible and should be avoided. Causes serious eye damage.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product:	ATEmix: 3,819.4 mg/kg

Specified substance(s)

Isobornyl acrylate	LD 50 (Rat): 4,350 mg/kg LD50 (rat): 4,890 mg/kg
Oxybis(methyl-2,1-ethanediyl) diacrylate	LD 50 (Rat): 4,626 mg/kg
Tetrahydrofurfuryl acrylate	
Phenoxyethylacrylate	LD50 (rat): 5,000 mg/kg
N-vinyl caprolactam	LD50 (rat): 1,400 mg/kg
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	LD 50 (Rat): > 2,000 mg/kg
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	LD 50 (Rat): > 5,000 mg/kg
Hexamethylene diacrylate	LD50 (rat): > 5,000 mg/kg

Dermal

Product:	Not classified for acute toxicity based on available data.

Specified substance(s)

Isobornyl acrylate	LD 50 (Rabbit): > 3,000 mg/kg LD50 (rabbit): 5,000 mg/kg

Oxybis(methyl-2,1-ethanediyl) diacrylate	LD 50 (Rabbit): > 2,000 mg/kg
Tetrahydrofurfuryl acrylate	
Phenoxyethylacrylate	LD50: > 2,000 mg/kg
N-vinyl caprolactam	LD50 (rat): > 2,000 mg/kg
Isodecyl acrylate	
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	LD 50 (Rat): > 2,000 mg/kg
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	LD 50 (Rat): > 2,000 mg/kg
Hexamethylene diacrylate	LD50 (rabbit): 3,650 mg/kg

Inhalation

Product:

Specified substance(s)

Isobornyl acrylate	
Oxybis(methyl-2,1-ethanediyl) diacrylate	
Tetrahydrofurfuryl acrylate	
Phenoxyethylacrylate	
N-vinyl caprolactam	
Isodecyl acrylate	
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	
Hexamethylene diacrylate	LCo (rat, 7 h): > 0.41 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s)

Isobornyl acrylate	NOAEL (Rat(Female, Male), Inhalation): 0.226 mg/l NOAEL (rat(male/female)): 100 mg/kg NOAEL (Rat(Female, Male), Oral, 28 - 53 d): 100 mg/kg NOAEL (Rat(Female, Male), Inhalation): 0.075 mg/l LOAEL (Rat(Female, Male), Inhalation): 0.753 mg/l
Oxybis(methyl-2,1-ethanediyl) diacrylate	NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg
Tetrahydrofurfuryl acrylate	
Phenoxyethylacrylate	
N-vinyl caprolactam	
Isodecyl acrylate	
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	NOAEL (Rat(Female, Male), Oral): 300 mg/kg
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	LOAEL (Rat(Female, Male), Oral, 28 d): 250 mg/kg LOAEL (Rat(Female, Male), Oral, 64 - 91 d): 300 mg/kg NOAEL (Rat(Female, Male), Oral, 64 - 91 d): 100 mg/kg NOAEL (Rat(Female, Male), Oral, 28 d): 50 mg/kg
Hexamethylene diacrylate	NOAEL (rat(male/female)): 250 mg/kg NOAEL (rat(male/female)): 250 mg/kg

Skin Corrosion/Irritation:

Product: No data available.

Specified substance(s)

Isobornyl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Phenoxyethylacrylate	OECD Test Guideline 404 (rabbit): Based on available data, the classification criteria are not met.
N-vinyl caprolactam	Literature. (rabbit): Based on available data, the classification criteria are not met.
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	OECD Test Guideline 404 (rabbit): No skin irritation
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	OECD Test Guideline 404 (rabbit): Based on available data, the classification criteria are not met.

Hexamethylene diacrylate	No data available.

Serious Eye Damage/Eye Irritation:

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	Literature. Severe eye irritation.
Oxybis(methyl-2,1-ethanediyl) diacrylate	in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS
Tetrahydrofurfuryl acrylate	Literature. Severe eye irritation.
Phenoxyethylacrylate	OECD Test Guideline 405 (rabbit): Mild eye irritation Based on available data, the classification criteria are not met.
N-vinyl caprolactam	Literature. (rabbit): Risk of serious damage to eyes.
Isodecyl acrylate	Literature. Severe eye irritation.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	in vivo (Rabbit, 24 - 72 hrs): Not Classified EU
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	OECD Test Guideline 405 (rabbit): No eye irritation Based on available data, the classification criteria are not met.
Hexamethylene diacrylate	OECD Test Guideline 405 (rabbit): Irritating to eyes.

Respiratory or Skin Sensitization:

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	, Mouse local lymphoma assay. (mouse)Causes sensitization.
Oxybis(methyl-2,1-ethanediyl) diacrylate	, Literature.Causes sensitization.
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	No data available.
N-vinyl caprolactam	, Literature.May cause sensitization of susceptible persons by skin contact.
Isodecyl acrylate	No data available
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Hexamethylene diacrylate	No data available.

Germ Cell Mutagenicity

In vitro

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	(OECD Test Guideline 471.)negative Based on available data, the classification criteria are not met. (OECD Test Guideline 476.)negative Based on available data, the classification criteria are not met. Chromosome aberration test in vitro (OECD-Guideline No.473; 1000/32/EC L1362000 Annex 4A): negative Based on available data, the classification criteria are not met.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	(OECD Test Guideline 471.)negative (OECD Test Guideline 476.)negative
N-vinyl caprolactam	Ames test (Literature.): negative
Isodecyl acrylate	No data available
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available
Hexamethylene diacrylate	(OECD Test Guideline 476.)Based on available data, the classification criteria are not met.

In vivo

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	No data available
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	No data available
N-vinyl caprolactam	No data available
Isodecyl acrylate	No data available

2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	(Literature.) Oral (rat, males)Based on available data, the classification criteria are not met.
Hexamethylene diacrylate	(Mutagenicity (micronucleus test)) (mouse)negative

Carcinogenicity

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	No data available
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available
Tetrahydrofurfuryl acrylate	Based on available data, the classification criteria are not met.
Phenoxyethylacrylate	No data available
N-vinyl caprolactam	No data available
Isodecyl acrylate	No data available
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available
Hexamethylene diacrylate	No data available

Reproductive toxicity

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	No data available
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	No data available

N-vinyl caprolactam	No data available
Isodecyl acrylate	No data available
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Based on available data, the classification criteria are not met.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Possible risk of impaired fertility.
Hexamethylene diacrylate	No data available

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	May cause irritation of respiratory tract.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	No data available
N-vinyl caprolactam	No data available
Isodecyl acrylate	May cause irritation of respiratory tract.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available
Hexamethylene diacrylate	No data available

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	No information available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No information available.
Tetrahydrofurfuryl acrylate	No information available.
Phenoxyethylacrylate	Based on available data, the classification criteria are not met.
N-vinyl caprolactam	May cause damage to organs through prolonged or repeated exposure.
Isodecyl acrylate	No information available.

2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No information available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No information available.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No information available.
Hexamethylene diacrylate	No information available.

Target Organs:
Liver

Aspiration Hazard

Product: No data available.

Specified substance(s)

Isobornyl acrylate	No data available
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	No data available
N-vinyl caprolactam	No data available
Isodecyl acrylate	No data available
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available
Hexamethylene diacrylate	No data available

SECTION 12: Ecological information

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

12.1 Toxicity

Acute toxicity

Fish

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	LC50 (Brachidanio rerio (zebra fish), 96 h): 0.704 mg/l (OECD Test Guideline 203)
Oxybis(methyl-2,1-ethanediyl) diacrylate	LC 50 (Leuciscus idus, 96 h): 2.2 - 4.64 mg/l (Static) experimental result
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	LC50 (Leuciscus idus (golden orfe), 48 h): ca. 12 mg/l (OECD Test Guideline 203) LC50 (Leuciscus idus (golden orfe), 96 h): ca. 10 mg/l (OECD Test Guideline 203)
N-vinyl caprolactam	LC50 (Brachidanio rerio (zebra fish), 96 h): 318 mg/l (OECD Test Guideline 203) Based on available data, the classification criteria are not met.
Isodecyl acrylate	LC50 (Oncorhynchus mykiss (rainbow trout), 96 h): 1.81 mg/l (OECD Test Guideline 203) NOEC (Oncorhynchus mykiss (rainbow trout), 96 h): 0.381 mg/l (OECD Test Guideline 203)
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	LC 50 (96 h): > 90 µg/l experimental result
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	LC50 (Leuciscus idus (golden orfe), 96 h): < 100.00 mg/l (Literature.)
Hexamethylene diacrylate	LC50 (Leuciscus idus (golden orfe), 96 h): 4.6 - 10 mg/l (DIN 38412)

Aquatic Invertebrates

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	No data available
Oxybis(methyl-2,1-ethanediyl) diacrylate	EC 50 (48 h): 22.3 mg/l (Static) experimental result
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	EC50 (Daphnia magna (water flea), 48 h): 1.21 mg/l (OECD Test Guideline 202) EC50 (Daphnia magna (water flea), 24 h): 3.85 mg/l (OECD Test Guideline 202)
N-vinyl caprolactam	EC50 (Daphnia magna, 48 h): > 100 mg/l (OECD Test Guideline 202) Based on available data, the classification criteria are not met.
Isodecyl acrylate	EC50 (Daphnia magna (water flea), 48 h): 1.3 mg/l (OECD Test Guideline 202)

2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	EC 50 (48 h): > 1.175 mg/l experimental result
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	EC0 (Daphnia magna (water flea), 48 h): < 100.00 mg/l (Literature.) EC50 (Daphnia, 48 h): 3.53 mg/l (Literature.)
Hexamethylene diacrylate	EC0 (Daphnia magna, 24 h): 1.6 mg/l (Literature.) EC50 (Daphnia magna, 24 h): 6 mg/l (Literature.) EC100 (Daphnia magna, 24 h): 25 mg/l (Literature.) EC0 (Daphnia magna, 48 h): 0.8 mg/l (Literature.) EC50 (Daphnia magna, 48 h): 2.6 mg/l (Literature.)

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

Isobornyl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Phenoxyethylacrylate	No data available.
N-vinyl caprolactam	No data available.
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Hexamethylene diacrylate	No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

Isobornyl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Phenoxyethylacrylate	No data available.

N-vinyl caprolactam	No data available.
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Hexamethylene diacrylate	No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

Isobornyl acrylate	NOEC (Algae, 72 h): 0.405 mg/l (OECD Test Guideline 201) EC50 (Algae, 72 h): 1.98 mg/l (OECD Test Guideline 201) EC50 (Algae, 72 h): 0.596 mg/l (OECD Test Guideline 201)
Oxybis(methyl-2,1-ethanediyl) diacrylate	EC50 (Algae, 72 h): < 16.7 mg/l (Literature.) Based on available data, the classification criteria are not met.
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	EC50 (Desmodesmus subspicatus (algae), 72 h): 4.4 mg/l (DIN 38412) EC50 (Desmodesmus subspicatus (algae), 96 h): 4.1 mg/l (DIN 38412)
N-vinyl caprolactam	EC50 (Scenedesmus subspicatus (algae), 72 h): > 100 mg/l (Literature.) Based on available data, the classification criteria are not met.
Isodecyl acrylate	EC50 (Desmodesmus subspicatus (algae), 72 h): 1.71 mg/l (Literature.) NOEC (Desmodesmus subspicatus (algae), 72 h): 0.45 mg/l (OECD Test Guideline 201)
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	EC50 (Scenedesmus subspicatus (algae), 72 h): > 0.26 mg/l (OECD Test Guideline 201)
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	EC50 (Algae, 72 h): > 1,000 mg/l (Literature.)
Hexamethylene diacrylate	NOEC (Algae, 72 h): ca. 0.5 mg/l (DIN 38412) EC10 (Algae, 72 h): 0.59 mg/l (DIN 38412) EC50 (Algae, 72 h): 1.5 mg/l (DIN 38412)

12.2 Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s)

Isobornyl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Phenoxyethylacrylate	No data available.
N-vinyl caprolactam	No data available.
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Hexamethylene diacrylate	No data available.

BOD/COD Ratio

Product	No data available.

Specified substance(s)

Isobornyl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Phenoxyethylacrylate	No data available.
N-vinyl caprolactam	No data available.
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Hexamethylene diacrylate	No data available.

12.3 Bioaccumulative Potential

Product:	No data available.

Specified substance(s)

Isobornyl acrylate	(Literature.) Accumulation in aquatic organisms is unlikely.
Oxybis(methyl-2,1-ethanediyl) diacrylate	Bioaccumulation is unlikely.
Tetrahydrofurfuryl acrylate	No data available

Phenoxyethylacrylate	(Literature.) Bioaccumulation is unlikely.
N-vinyl caprolactam	Bioaccumulation is unlikely.
Isodecyl acrylate	No data available
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Bioconcentration Factor (BCF): < 5 (Literature.)
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Bioconcentration Factor (BCF): 22 - 32 (Literature.)
Hexamethylene diacrylate	Accumulation in aquatic organisms is expected.

12.4 Mobility in Soil: No data available.

Known or predicted distribution to environmental compartments

Isobornyl acrylate	No data available
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available
Tetrahydrofurfuryl acrylate	No data available
Phenoxyethylacrylate	No data available
N-vinyl caprolactam	Transport between environmental compartments is not expected.
Isodecyl acrylate	No data available
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available
Hexamethylene diacrylate	No data available

12.5 Results of PBT and vPvB assessment: Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccummulative) criteria

Isobornyl acrylate	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
Tetrahydrofurfuryl acrylate	No data available.
Phenoxyethylacrylate	No data available.
N-vinyl caprolactam	No data available.
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.

Hexamethylene diacrylate	No data available.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: No data available.

Disposal methods: Discharge, treatment, or disposal may be subject to national, state, or local laws. Do not allow to enter drains, sewers or watercourses.

SECTION 14: Transport information

ADR

14.1 UN 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:	(E)
14.4 Packing Group:	III
14.5 Marine Pollutant:	Yes
14.6 Limited quantity	5.00L
14.7 Excepted quantity	
14.8 Environmental Hazards:	Environmentally Hazardous
14.9 Special precautions for user:	–

RID

14.1 UN 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 Marine Pollutant:	Yes
14.6 Environmental Hazards:	Environmentally Hazardous
14.7 Special precautions for user:	–

IMDG

14.1 UN 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
14.5 Marine Pollutant:	Yes
14.6 Limited quantity	
14.7 Limited quantity	
14.8 Environmental Hazards:	Marine pollutant
14.9 Special precautions for user:	–
14.10 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	not applicable

IATA

14.1 UN 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
14.5 Marine Pollutant:	Yes
14.6 Limited quantity	
14.7 Excepted quantity	
14.8 Environmental Hazards:	Environmentally Hazardous
14.9 Special precautions for user:	–
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

SECTION 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 850/2004 on persistent organic pollutants: none

Regulation (EC) No. 689/2008 Import and export of dangerous chemicals: none

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended: none

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use: none

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens

and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.: none

Directive 96/82/EC (Seveso II): on the control of major accident hazards involving dangerous substances:

Chemical name	CAS-No.	Concentration
Isobornyl acrylate	5888-33-5	10 - 20%
Isodecyl acrylate	1330-61-6	1.0 - 10%
Hexamethylene diacrylate	13048-33-4	0.1 - 1.0%

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

Chemical name	CAS-No.	Concentration
Isobornyl acrylate	5888-33-5	10 - 20%
Isodecyl acrylate	1330-61-6	1.0 - 10%
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	75980-60-8	1.0 - 10%
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	1.0 - 10%
Hexamethylene diacrylate	13048-33-4	0.1 - 1.0%
mequinol; 4-methoxyphenol; hydroquinone monomethyl ether	150-76-5	0 - <0.1%

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Not relevant.Not relevant.

Key literature references and sources for data: No data available.

Wording of the H-statements in section 2 and 3

H302	Harmful if swallowed.
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.
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.

H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Training information: No data available.

Classification according to Regulation (EC) No 1272/2008 as amended.

STOT RE 2, H373

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1A, H317

STOT SE 3, H335

Aquatic Chronic 2, H411

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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.