1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or mixture:

Product name	:	AGORA S1.2 CYAN
REACH Registration No	:	Registration numbers of the individual components: see section 3.2.

1.2 Use of the substance/mixture:

Identified relevant uses	:	Printer ink
Uses advised against	:	Only for professional use.

1.3 Company/undertaking identification

Agfa-Gevaert NV
Septestraat 27
2640 Mortsel
Belgium
Tel. : +32 3 4445501
Fax : +32 3 4445503
Person responsible for the safety data sheet: Jos Vanholzaets
E-mail: electronic.sds@agfa.com

1.4 Emergency telephone

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

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Regulation(EC) No 1272/2008 (CLP)	
• Hazard classes	Acute toxicity Oral
Hazard categories	Category 4
Hazard statements	H302
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Skin sensitizer
Hazard categories	Category 1
Hazard statements	H317
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Specific target organ toxicity - repeated exposure
Hazard categories	Category 2
Hazard statements	H373
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Chronic hazards to the aquatic environment
Hazard categories	Category 3
Hazard statements	H412
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Toxic to reproduction
Hazard categories	Category 2

Hazard statements	H361fd
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Serious eye irritation
Hazard categories	Category 2
Hazard statements	H319
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Specific target organ toxicity - single exposure
Hazard categories	Category 3
Hazard statements	H335
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Skin irritation
Hazard categories	Category 2
Hazard statements	H315
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.

67/548/EEC or 1999/45/EC	
Hazards characteristics	Harmful
R-phrase(s)	R22, R36/37/38, R43, R48/22, R52/53

Full text of each relevant R and H phrase is listed in section 16.

2.2 Label elements:

Hazardous components which must be listed on the label :

• CAS-No. : 86273-46-3 2-(2-Vinyloxyethoxy) ethyl acrylate
75980-60-8 Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

Symbol(s)

GHS07

GHS08

Signal word : WARNING

Hazard statements : H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H315 Causes skin irritation.

Precautionary statements: general : P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazards:

This product does not meet the criteria concerning PBT or vPvB substances as described in Annex XIII of the REACH regulation (1907/2006 EC)

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixture related information:

Printer ink, mainly consisting of:

3.2 Hazard ingredients:

The hazard and labelling information in this section is that of the individual ingredients. The corresponding information relative to this product as supplied is given in section 2.1.

Hazardous components in the meaning of regulation(EC) No 1272/2008 (CLP)

- 2-(2-Vinyloxyethoxy) ethyl acrylate — Concentration [%] : 10,0 - 20,0
  - CAS-No. : 86273-46-3
  - REACH Registration No : Transition time according to REACH regulation article 23 is still not expired.
  - Hazard classes : Acute toxicity Oral, Skin sensitizer, Specific target organ toxicity - repeated exposure Oral, Chronic hazards to the aquatic environment
  - Hazard categories : Category 4, Category 1, Category 2, Category 4
- Acrylate — Concentration [%] : 60,0 - 80,0
  - REACH Registration No : Transition time according to REACH regulation article 23 is still not expired.
  - Hazard classes : Serious eye irritation, Specific target organ toxicity - single exposure Inhalation, Skin irritation, Chronic hazards to the aquatic environment
  - Hazard categories : Category 2, Category 3, Category 2, Category 2
- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- — Concentration [%] : 1,0 - 5,0
  - CAS-No. : 75980-60-8
  - EINECS-No. : 278-355-8
  - REACH Registration No : Transition time according to REACH regulation article 23 is still not expired.
  - Hazard classes : Toxic to reproduction, Chronic hazards to the aquatic environment
  - Hazard categories : Category 2, Category 3

Hazardous components in the meaning of 67/548/EEC or 1999/45/EC

- 2-(2-Vinyloxyethoxy) ethyl acrylate — Concentration [%] : 10,0 - 20,0
  - CAS-No. : 86273-46-3
  - Symbol(s) : Xn
  - R-phrase(s) : R22, R43, R48/22
- Acrylate — Concentration [%] : 60,0 - 80,0

Symbol(s) : Xi, N
R-phrase(s) : R36/37/38, R51/53

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- Concentration [%] : 1,0 - 5,0
  CAS-No. : 75980-60-8
  EINECS-No. : 278-355-8
  Symbol(s) : Xn
  R-phrase(s) : R62, R52/53

Components with a community workplace exposure limit

- blue organic pigment

3.3 Remark:

Full text of each relevant R and H phrase is listed in section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures:

Eye contact	:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	:	Take off all contaminated clothing immediately. Rinse with plenty of water. Call a physician immediately.
Ingestion	:	Let drink 1 glass of water if victim is conscious. Do not induce vomiting. Call a physician immediately.
Inhalation	:	Take person to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

4.2 Most important symptoms and effects:

Symptoms	:	Repeated contact may cause allergic reactions in very susceptible persons. In normal conditions of use, no adverse effects are expected.

4.3 Indication of immediate medical attention and special treatment needed:

General advice	:	Call a physician immediately.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	:	Dry extinguishing powder., Water spray., Carbon dioxide (CO2)., Foam.
Extinguishing media which must not be used for safety reasons	:	Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture:

Specific hazards during fire fighting	:	Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.
Further information	:	At a fire in the surrounding area, cool down the vessels with water or if possible withdraw them from the fire.

5.3 Advice for fire-fighters:

Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Personal precautions	:	Cleanup personnel must use appropriate personal protective equipment.
Additional advice	:	Keep away from heat or open flame. Take measures to prevent the build up of electrostatic charge.

6.2 Environmental precautions:

Environmental precautions	:	Prevent release into the drain, soil or surface water.

6.3 Methods and material for containment and cleaning up:

Methods for cleaning up	:	If spill occurs, apply a suitable absorbent material and collect into an impervious waste container. Wash away residues with plenty of water.

6.4 Reference to other sections:

For waste disposal see section 13.
For personal protection see section 8.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Hygiene measures	:	When using do not eat or drink.Avoid ingestion, inhalation, skin and eye contact.
Advice on protection against fire and explosion	:	Avoid heat or open flame.Use fire-proof electrical material.All parts of the installation should be earthed carefully.

7.2 Conditions for safe storage:

Requirements for storage areas and containers	:	No naked lights. No smoking.Keep in a well-ventilated place.Protect from direct sunlight.Keep container tightly closed.Do not collect the product in an iron vessel.Take precautionary measures against static discharges.
Further information on storage conditions	:	Keep container in a well-ventilated place.
Advice on common storage	:	Store away from strong oxidizing agents.Store away from acids.Store away from alkali.

7.3 Specific end use:

This substance is used only by trained professionals under restricted conditions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Components with occupational exposure limits rsp. biological occupational exposure limits requiring monitoring:

8.1.1.1 Occupational exposure limits:

Air limit values

We are not aware of any national exposure limit.

Biological limit values

We are not aware of any national exposure limit.

8.1.1.2 Additional exposure limits under the conditions of use:

No other exposure limits applicable.

8.1.1.3 DNEL/DMEL and PNEC-values:

DNEL

No Chemical Safety Report performed. No DNEL/DMEL value determined.

PNEC

No Chemical Safety Report performed. No PNEC value determined.

8.2 Exposure controls:

Occupational exposure controls:

- **Instructual measures to prevent exposure:**

  Employees should wash their hands and face before eating, drinking, or using tobacco products.
  Keep away from foodstuffs, drinks and tobacco.

- **Technical measures to prevent exposure:**

  Ensure adequate ventilation.

- **Personal measures to prevent exposure:**

Respiratory protection	:	Breathing equipment A-filter.
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, for example KCL 898 Butoject (full contact), KCL 890 Vito Ject (splash contact). 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.
Eye protection	:	Safety glasses.

Body Protection	:	Safety clothes.
Personal protective equipment	:	Observe normal precautions when handling chemicals.

Environmental exposure controls:

Do not release into drain. Collect for removal by a licensed waste contractor. Effluent regulations/discharge/treatment/contents may vary from one area to another. Please consult the local regulations regarding the disposal of this material.

EU Directive	Status
European Directive 2000/60/EC (water)	not on list
European Directive 1996/62/EC (air)	not on list

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Basic physical and chemical properties:

9.1.1 Appearance:

State of matter	:	liquid
Form	:	Liquid.
Colour	:	Cyan
Odour	:	Smell of esters
Odour threshold	:	No data available

9.1.2 Important health, safety and environmental information:

pH	:	Not applicable
Melting point/range	:	No data available
Boiling point/range	:	No data available
Flash point	:	No data available
Autoignition temperature	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Solubility/qualitative	:	No data available
Water solubility	:	No data available
Viscosity, kinematic	:	No data available
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	no data available

9.2 Other information:

Solubility	:	No data available
Ignition temperature	:	no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity:

Reactivity	:	Reactivity is not to be expected under normal conditions of temperature and pressure

10.2 Chemical stability:

Stability : Substance may undergo hazardous polymerization if stored at temperatures above 40℃ or in the presence of oxyge n under 7 vol%.

10.3 Possibility of hazardous reactions:

Hazardous reactions : Hazardous polymerization may occur if contaminated with heating, direct sunlight, iron, peroxide or acid.

10.4 Conditions to avoid:

Conditions to avoid : Heat, flames and sparks.

10.5 Materials to avoid:

Materials to avoid : Strong oxidants, peroxides, acids and iron.

10.6 Hazardous decomposition products:

Hazardous decomposition products : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxicokinetics, metabolism and distribution:

- 2-(2-Vinyloxyethoxy) ethyl acrylate

No data available

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

Acute effects (toxicity tests):

➢ **Acute Toxicity**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	1.790 mg/kg	OECD Test Guideline 401
Acute oral toxicity	LD50	rat	2.026 mg/kg	OECD Test Guideline 401
Acute oral toxicity	LD50	rat	300 to 2.000 mg/kg	
Acute dermal toxicity	LD50	rat	> 2.000 mg/kg	OECD Test Guideline 402
Acute inhalation toxicity	LC50	rat	5,82 mg/l/ 4 h	OECD Test Guideline 403

- Acrylate

	Effect dose	Species	Value	Method

Acute oral toxicity	LD50	rat	4.600 mg/kg
Acute dermal toxicity	LD50	rabbit	> 2.000 mg/kg
Acute inhalation toxicity			
	No data available		

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	> 2.000 mg/kg	
Acute dermal toxicity				
	No data available			
Acute inhalation toxicity				
	No data available			

➢ **Specific target organ toxicity (STOT):**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Specific effects	Affected organs
No data available	

- Acrylate

Specific effects	Affected organs
No data available	

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

Specific effects	Affected organs
No data available	

➢ **Irritant and corrosive effects:**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

	Exposure time	Species	Evaluation	Method
Primary irritation to the skin		rabbit	Moderate skin irritation	OECD Test Guideline 404
Irritation to eyes		rabbit	No eye irritation	OECD Test Guideline 405

- Acrylate

	Exposure time	Species	Evaluation	Method
Primary irritation to the skin				
	No data available			
Irritation to eyes				
	No data available			

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

	Exposure time	Species	Evaluation	Method
Primary irritation to the skin		rabbit	No skin irritation	Literature.
	Based on available data, the classification criteria are not met.			
Irritation to eyes		rabbit	No eye irritation	Literature.
	Based on available data, the classification criteria are not met.			

➢ **Irritation to the respiratory tract:**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

No data available

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

➢ **Sensitisation:**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Species	Evaluation	Method
mouse	May cause sensitisation by skin contact.	Mouse local lymphoma assay.

- Acrylate

Species	Evaluation	Method
	No data available	

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

Species	Evaluation	Method
	No data available	

➢ **Aspiration hazard:**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

No data available

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

Sub-acute, sub-chronic and chronic toxicity

➢ **Repeated dose toxicity:**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

	Effect dose	Value	Exposure time	Species
Sub-acute oral	NOEL Method: OECD Test Guideline 407	160 mg/kg	28-day	rat

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

➢ **Specific target organ toxicity (STOT):**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Repeated exposure	Specific effects	Affected organs

Sub-acute oral	Meets the criteria of 3.9.2 of CLP-Regulation (EC) No.1272/2008.

- Acrylate

No information available.

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No information available.

➢ **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):**

- **Carcinogenicity**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

No tumors were reported in mice following long-term dermal application.

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

- **Mutagenicity**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

There is no evidence for mutagenicity from studies in animals.

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

- **Genetic toxicity in vitro**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Type	Test system	Concentration	Result
Ames test	Escherichia coli WP2 uvr A; Salmonella typhimurium TA98, TA100, TA535, TA1537 Method: Mutagenicity (Escherichia coli - reverse mutation assay)		negative
Chromosome aberration test in vitro	Chinese hamster lung cells Method: Mutagenicity (in vitro mammalian cytogenetic test)		negative

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

- **Genetic toxicity in vivo**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

No data available

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

Route of exposure	Species	Exposure time	Result
Oral	rat (males) Method: Literature. Based on available data, the classification criteria are not met.		

- **Teratogenicity**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Route of exposure	Species	Exposure time
Oral	rat Method: Directive 92/32/EEC, Annex V, B.31.	28-day

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

- **Toxicity to reproduction**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Route of exposure	Species	Exposure time
Oral	rat Method: OECD-Guideline No.422	

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

Route of exposure	Species	Exposure time
Oral	rat (male) Reproductive effects have been observed in animal studies.	

➢ **Summarised evaluation of the CMR properties:**

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Carcinogenicity : Did not show carcinogenic effects in animal experiments.
Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.Not mutagenic in AMES Test.
Teratogenicity : Animal testing did not show any effects on foetal development.
Toxicity to reproduction : Animal testing did not show any effects on fertility.

Experiences made in practice:

- 2-(2-Vinyloxyethoxy) ethyl acrylate

May be harmful by inhalation, ingestion, skin adsorption.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

- 2-(2-Vinyloxyethoxy) ethyl acrylate

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50 Method: OECD Test Guideline 203	96 h	Brachidanio rerio (zebra fish)	6,8 mg/l

Toxicity to fish	NOEC	96 h	Brachidanio rerio (zebra fish) Method: OECD Test Guideline 203	2,2 mg/l
Toxicity to fish	LC100	96 h	Brachidanio rerio (zebra fish) Method: OECD Test Guideline 203	10 mg/l
Toxicity to daphnia	EC50	48 h	Daphnia magna Method: OECD Test Guideline 202	55 mg/l
Toxicity to daphnia	EC100	48 h	Daphnia magna Method: OECD Test Guideline 202	100 mg/l
Toxicity to daphnia	NOEC	48 h	Daphnia magna Method: OECD Test Guideline 202	25 mg/l
Toxicity to algae	EC50	72 h	Scenedesmus subspicatus (algae) Method: OECD Test Guideline 201	5 mg/l
Toxicity to algae	NOEC	72 h	scenedesmus subspicatus Method: OECD Test Guideline 201	0,78 mg/l
Toxicity to algae	LOEC	72 h	scenedesmus subspicatus Method: OECD Test Guideline 201	2,7 mg/l
Toxicity to bacteria	IC50	3 h	Method: OECD-Guideline No.209; 88/302/EEC C.11	741 mg/l

- Acrylate

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50	96 h	Leuciscus idus (golden orfe)	> 2,1 mg/l
Toxicity to daphnia	EC50	48 h	Daphnia magna (water flea)	22 mg/l
Toxicity to algae	EC50	72 h	Scenedesmus subspicatus (algae)	16,7 mg/l
Toxicity to bacteria	No data available			

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50	96 h	Leuciscus idus (golden orfe)	< 100,00 mg/l
Toxicity to daphnia	EC0	48 h	Daphnia magna (water flea)	< 100,00 mg/l
Toxicity to algae	EC50	72 h	Algae	< 100 mg/l
Toxicity to bacteria	EC50	17 h	Bacteria	> 500,00 mg/l

12.2 Persistence and degradability:

Physico-chemical removability

- 2-(2-Vinyloxyethoxy) ethyl acrylate

The product can be degraded by abiotic (e.g. chemical or photolytic) processes.

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

Chemical Oxygen Demand (COD)

- 2-(2-Vinyloxyethoxy) ethyl acrylate

No data available

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

Adsorbed organic bound halogens (AOX)

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Product does not contain any organic halogens.

- Acrylate

Product does not contain any organic halogens.

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

Biodegradation

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Value	Exposure time	Method	Evaluation
		OECD-Guideline No.301C	Readily biodegradable.

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

Biochemical Oxygen Demand (BOD)

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Concentration	Incubation time	Value	Method
		82,1 mg/g	OECD-Guideline No.301C

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

12.3 Bioaccumulative potential:

Partition coefficient (n-octanol/water)

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Value	pH	℃	Method
log Pow: 1,7			Tested according to Directive 92/69/EEC.

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

Bioconcentration factor (BCF)

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Bioaccumulation is unlikely.

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

12.4 Mobility in soil:

- 2-(2-Vinyloxyethoxy) ethyl acrylate

This product will show high soil mobility and will be degraded through hydrolysis from the ambient atmosphere with a half-life of 1.8 hr (at pH=4), 200 hr (at pH=7) and 67 hr (at pH=9).

- Acrylate

No information available.

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No information available.

Henry's constant

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Value	Temperature	Method
		No information available.

- Acrylate

Value	Temperature	Method
		No information available.

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

Value	Temperature	Method
		No information available.

Transport between environmental compartments

- 2-(2-Vinyloxyethoxy) ethyl acrylate

Type	Medium	Value	Method
		Koc: 15	OECD-Guideline No.121, 2001/59/EEC C.19
Transport between environmental compartments can be expected.			

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

12.5 Results of PBT and vPvB assessment:

- 2-(2-Vinyloxyethoxy) ethyl acrylate

This product does not meet the criteria concerning PBT or vPvB substances as described in Annex XIII of the REACH regulation (1907/2006 EC)

- Acrylate

No data available

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

12.6 Other adverse effects:

- 2-(2-Vinyloxyethoxy) ethyl acrylate

When properly applied, negative effects on the functionality of waste treatment plants are not expected. Avoid infiltration in to drinking supplies, waste water or soil.

- Acrylate

No information available.

- Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Waste disposal methods

Do not release into drain. Collect for removal by a licensed waste contractor. Effluent regulations/discharge/treatment/contents may vary from one area to another. Please consult the local regulations regarding the disposal of this material.

Empty containers.

Uncontrolled disposal or recycling of this packaging is not permitted and can be dangerous.

For waste resulting from this product, it is recommended to use European Waste Code : 08 03 13 (waste ink other than those mentioned in 08 03 12).

14. TRANSPORT INFORMATION

Not regulated according to ADR.
Not regulated according to ADNR.
Not regulated according to RID.
Not regulated according to IMO/IMDG.
Not regulated according to ICAO/IATA aircraft only.
Not regulated according to ICAO/IATA passenger and cargo aircraft.

15. REGULATORY INFORMATION

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

Authorisation and/or restriction on use

Authorisation	:	No
Restriction on use	:	Not listed on EU. REACH, Annex XVII, Restrictions on manufacture, placing on the market and use of certain dangerous substances, mixtures & articles (Reg 1907/2006/EC, as amended

Other EU regulations

Does not fall under specific EU-Regulations.

15.2 Chemical Safety Assessment

No Chemical Safety Report needed according REACH.

16. OTHER INFORMATION

Text of H-phrases referred to under headings 2 and 3:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Text of R-phrases referred to under headings 2 and 3:

R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R43	May cause sensitization by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.

Further information

The information disclosed in this Safety Data Sheet is believed to be correct to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other material or in any process, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management.

Sources of key data used to compile the datasheet

Handbuch der gefährlichen Güter, Hommel.
The Dictionary of Substances and their Effects, Royal Society of Chemistry.
Gefährliche Chemische Reaktionen, L.Roth und U.Weller.
Handbuch der Umweltgifte, Dauderer.
Chemiekaarten, latest version.
Safety Data Sheet from the supplier.

Abbreviations

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 (GE)
ATEmix:	Acute toxicity estimate of the mixture
CLP:	Classification, Labelling and Packaging of substances and mixtures
CMR:	Carcinoge
DNEL:	Derived No Effect Level

EC0:	Effective Concentration 0%
EC5:	Effective Concentration 5%
EC10:	Effective Concentration 10%
EC50:	Median Effective Concentration
EC100:	Effective Concentration 100%
EH40 WEL:	Workplace Exposure Limit (UK)
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 (GE)
TWA:	Time Weighted Average
VOC:	Volatile Organic Compound
vPvB:	very Persistent and very Bioaccumulative substance