

# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH Annex II)



## JETI ANUVIA HDC YELLOW INK

SUBID : 000001011608

Version 1

Print Date 30.05.2016

Revision Date 14.05.2014

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

#### 1.1 Identification of the substance or mixture:

Product name : JETI ANUVIA HDC YELLOW INK  
REACH Registration No : Registration numbers of the individual components: see section 3.2, if applicable.

#### 1.2 Use of the substance/mixture:

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

#### 1.3 Company/undertaking identification

Agfa-Gevaert Ltd.  
Vantage West  
Great West Road  
Brentford, Middlesex TW8 9AX  
United Kingdom  
Tel. : +44 (0)20 8 231 4616  
Fax : +44 (0)20 8 231 4951  
E-mail: electronic.sds@agfa.com

#### 1.4 Emergency telephone

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

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture:

Regulation(EC) No 1272/2008 (CLP)	
• Hazard classes	Skin irritation
Hazard categories	Category 2
Hazard statements	H315
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.
• Hazard classes	Serious eye damage
Hazard categories	Category 1
Hazard statements	H318
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	Toxic to reproduction
Hazard categories	Category 1B
Hazard statements	H360FD
Classification procedure	According the classification criteria of CLP Regulation (EC) No 1272/2008.

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• 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.

### 67/548/EEC or 1999/45/EC

Hazards characteristics	Harmful
R-phrases	R22, R36/37/38, R41, R43, 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. | : 57472-68-1 | Oxybis(methyl-2,1-ethanediyl) diacrylate                 |
|         | : 86273-46-3 | 2-(2-Vinyloxyethoxy) ethyl acrylate                      |
|         | : 71868-10-5 | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one |

Symbol(s)



GHS05



GHS07



GHS08

Signal word : DANGER  
Hazard statements : H315

Causes skin irritation.

H317 : May cause an allergic skin reaction.  
H318 : Causes serious eye damage.  
H360FD : May damage fertility. May damage the unborn child.  
H412 : Harmful to aquatic life with long lasting effects.  
Precautionary statements: : P280 : Wear protective gloves/protective clothing/eye protection/face protection.

P201 : Obtain special instructions before use.  
P281 : Use personal protective equipment as required.  
Precautionary statements: : P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing.

P310 : Immediately call a POISON CENTER/doctor/#  
P308+P313 : IF exposed or concerned: Get medical advice/attention.  
Precautionary statements: : P405 : Store locked up.

### 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)

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### 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 [%] : 20.0 - 40.0  
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  
Hazard categories : Category 4, Category 1  
Hazard statements : H302, H317
- Oxybis(methyl-2,1-ethanediyl) diacrylate Concentration [%] : 10.0 - 20.0  
CAS-No. : 57472-68-1  
EINECS-No. : 260-754-3  
REACH Registration No : 01-2119484629-21-XXXX  
Hazard classes : Skin irritation, Serious eye damage, Skin sensitizer  
Hazard categories : Category 2, Category 1, Category 1  
Hazard statements : H315, H318, H317
- ethoxylated trimethylolpropane triacrylate Concentration [%] : 10.0 - 20.0  
CAS-No. : 28961-43-5  
REACH Registration No : 01-2119489900-30-XXXX  
Hazard classes : Serious eye irritation, Skin sensitizer  
Hazard categories : Category 2, Category 1  
Hazard statements : H319, H317
- 4-(1,1-dimethylethyl)cyclohexyl acrylate Concentration [%] : 10.0 - 20.0  
CAS-No. : 84100-23-2  
Index-No. : 607-133-00-9  
EINECS-No. : 282-104-8  
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, Skin irritation, Chronic hazards to the aquatic environment  
Hazard categories : Category 2, Category 3, Category 2, Category 2  
Hazard statements : H319, H335, H315, H411
- 2-[[[(butylamino)carbonyl]oxy]ethyl]acrylate Concentration [%] : 5.0 - 10.0  
CAS-No. : 63225-53-6  
EINECS-No. : 264-036-0  
REACH Registration No : Transition time according to REACH regulation article 23 is still not expired.  
Hazard classes : Serious eye irritation, Skin irritation  
Hazard categories : Category 2, Category 2  
Hazard statements : H319, H315
- 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one Concentration [%] : 1.0 - 5.0  
CAS-No. : 71868-10-5  
Index-No. : 606-041-00-6  
EINECS-No./ELINCS No. : /4006006

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REACH Registration No : 01-2119472306-39  
Hazard classes : Acute toxicity Oral, Chronic hazards to the aquatic environment, Toxic to reproduction  
Hazard categories : Category 4, Category 2, Category 1B  
Hazard statements : H302, H411, H360FD

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

- 2-(2-Vinyloxyethoxy) ethyl acrylate Concentration [%] : 20.0 - 40.0  
CAS-No. : 86273-46-3  
Symbol(s) : Xn  
R-phrases(s) : R22, R43
- Oxybis(methyl-2,1-ethanediyl) diacrylate Concentration [%] : 10.0 - 20.0  
CAS-No. : 57472-68-1  
EINECS-No. : 260-754-3  
Symbol(s) : Xi  
R-phrases(s) : R38, R41, R43
- ethoxylated trimethylolpropane triacrylate Concentration [%] : 10.0 - 20.0  
CAS-No. : 28961-43-5  
Symbol(s) : Xi  
R-phrases(s) : R36, R43
- 4-(1,1-dimethylethyl)cyclohexyl acrylate Concentration [%] : 10.0 - 20.0  
CAS-No. : 84100-23-2  
Index-No. : 607-133-00-9  
EINECS-No. : 282-104-8  
Symbol(s) : Xi, N  
R-phrases(s) : R36/37/38, R51/53
- 2-[[[butylamino)carbonyl]oxy]ethylacrylate Concentration [%] : 5.0 - 10.0  
CAS-No. : 63225-53-6  
EINECS-No. : 264-036-0  
Symbol(s) : Xi  
R-phrases(s) : R36/38
- 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one Concentration [%] : 1.0 - 5.0  
CAS-No. : 71868-10-5  
Index-No. : 606-041-00-6  
EINECS-No./ELINCS No. : /4006006  
Symbol(s) : Xn, N  
R-phrases(s) : R22, R51/53

### Components with a community workplace exposure limit

- 4-(1,1-dimethylethyl)cyclohexyl acrylate

### 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 : Immediately flush eye(s) with plenty of water. Consult an oculist if necessary.  
Skin contact : Wash off with soap and water.  
Ingestion : Rinse mouth with plenty of water. Consult a physician if necessary. Do not induce vomiting.

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Inhalation : Take patient to fresh air if necessary. Consult a physician if necessary.

### 4.2 Most important symptoms and effects:

Symptoms : Upon contact with skin: redness, pain. In case of eye contact: redness and pain. Ingestion can cause nausea, vomiting and diarrhea. May cause headache and dizziness.

### 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 : Alcohol-resistant foam., Carbon dioxide (CO<sub>2</sub>)., Dry extinguishing powder., Water.

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 : Do not use a solid water stream as it may scatter and spread fire.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### 5.3 Advice for fire-fighters:

Special protective equipment for fire-fighters : Regular fire intervention clothes.

## 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 : Observe normal precautions when handling chemicals.

### 6.2 Environmental precautions:

Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.

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

Methods for cleaning up : Dike the spill if necessary. If spill occurs, apply a suitable absorbent material and collect into an impervious waste container. Collect the product in a plastic vessel. Carefully collect leftovers.

### 6.4 Reference to other sections:

For waste disposal see section 13.

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For personal protection see section 8.

### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:

- |   |   |   |
|---|---|---|
| Advice on safe handling                         | : | Prevent product from diffusing.   |
| Hygiene measures                                | : | Observe normal precautions when handling chemicals. Keep away from foodstuffs, drinks and tobacco. Employees should wash their hands and face before eating, drinking, or using tobacco products. |
| Advice on protection against fire and explosion | : | No special protective measures against fire and explosion required.   |

#### 7.2 Conditions for safe storage:

- |   |   |   |
|---|---|---|
| Requirements for storage areas and containers | : | Keep container tightly closed. Keep in a dry place. |
| Further information on storage conditions     | : | Keep container in a well-ventilated place.          |

#### 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 resp. 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:

- Instruction measures to prevent exposure:

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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 : not required under normal use
- Hand protection : Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butylrubber (thickness  $\geq 0.70$  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.
- Eye protection : Safety goggles. EN 166.
- 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.
- Color : Yellow
- Odor : Sweetish smell
- Odor threshold : No data available

#### 9.1.2 Important health, safety and environmental information:

- pH : Not applicable
- Melting point/range :  $< 0$  °C Method: Literature.
- Boiling point/range :  $> 100$  °C Method: Literature.
- Flash point :  $> 100$  °C Method: Literature.
- Autoignition temperature : No data available

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Vapour pressure	: No data available	
Relative vapour density	: No data available	
Relative density	: 1.000 - 1.100	Method: Literature.
Density	: No data available	
Solubility/qualitative	: Immiscible with water.	
Water solubility	: No data available	
Partition coefficient (n-octanol/water)	: No data available	
Viscosity, dynamic (45 °C)	: 10.7 mPa.s	Method: Literature.
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)	: Not flammable.	Method: Literature.

### 9.2 Other information:

VOC content	: Not applicable
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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity:

Reactivity	: Reactivity is not to be expected under normal conditions of temperature and pressure.
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### 10.2 Chemical stability:

Stability	: The product is stable under normal conditions of storage and use.
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### 10.3 Possibility of hazardous reactions:

Hazardous reactions	: The product is stable under normal conditions of storage and use.
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### 10.4 Conditions to avoid:

Conditions to avoid	: Avoid contact with strong acids.
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### 10.5 Materials to avoid:

Materials to avoid	: No data available
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### 10.6 Hazardous decomposition products:

Hazardous decomposition products	: No specified dangerous decomposition products are known.
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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Toxicokinetics, metabolism and distribution:

No data available



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**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 dermal toxicity	LD50	rat	Based on available data, the classification criteria are not met. > 2,000 mg/kg	OECD Test Guideline 402
Acute inhalation toxicity	LC50	rat	Based on available data, the classification criteria are not met. 5.82 mg/l/ 4 h	OECD Test Guideline 403

- Oxybis(methyl-2,1-ethanediyl) diacrylate

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	4,600 mg/kg	Literature.
Acute dermal toxicity	LD50	rabbit	Based on available data, the classification criteria are not met. > 2,000 mg/kg	Literature.
Acute inhalation toxicity			Based on available data, the classification criteria are not met.	
			No data available	

- ethoxylated trimethylolpropane triacrylate

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	> 2,000 mg/kg	OECD Test Guideline 401
Acute dermal toxicity	LD50	rabbit	Based on available data, the classification criteria are not met. > 13,200 mg/kg	Literature.
Acute inhalation toxicity			Based on available data, the classification criteria are not met.	
			No data available	

- 4-(1,1-dimethylethyl)cyclohexyl acrylate

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	> 2,000 mg/kg	Literature.
Acute dermal toxicity			Based on available data, the classification criteria are not met.	
Acute inhalation toxicity			No data available	
			An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.	

- 2-[[[(butylamino)carbonyl]oxy]ethyl]acrylate

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	> 2,000 mg/kg	
Acute dermal toxicity			Based on available data, the classification criteria are not met.	
Acute inhalation toxicity			No data available	
			No data available	

- 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

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	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	1,984 mg/kg	OECD Test Guideline 401
Acute dermal toxicity	LD50	rat	> 2,000 mg/kg	OECD Test Guideline 402
Acute inhalation toxicity	Based on available data, the classification criteria are not met. LC50 No data available			

### ➤ Specific target organ toxicity (STOT):

Specific effects	Affected organs
Based on available data, the classification criteria are not met.	

### ➤ Irritant and corrosive effects:

	Exposure time	Species	Evaluation	Method
Primary irritation to the skin	Irritating to skin.			
Irritation to eyes				
	Risk of serious damage to eyes.			

### ➤ Irritation to the respiratory tract:

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

### ➤ Sensitisation:

Species	Evaluation	Method
	May cause sensitization of susceptible persons by skin contact.	

### ➤ Aspiration hazard:

No data available

### Sub-acute, sub-chronic and chronic toxicity

### ➤ Repeated dose toxicity:

No data available

### ➤ Specific target organ toxicity (STOT):

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

### ➤ CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

#### - Carcinogenicity

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

#### - Mutagenicity

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

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### - Genetic toxicity in vitro

No data available

### - Genetic toxicity in vivo

No data available

### - Teratogenicity

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

### - Toxicity to reproduction

May cause harm to unborn child. Possible risk of impaired fertility.

### ➤ Summarised evaluation of the CMR properties:

Carcinogenicity	:	Based on available data, the classification criteria are not met.
Mutagenicity	:	Based on available data, the classification criteria are not met.
Teratogenicity	:	Based on available data, the classification criteria are not met.
Toxicity to reproduction	:	May cause harm to unborn child. Possible risk of impaired fertility.

### Experiences made in practice:

At high concentrations the monomer vapours can cause eye and nose irritation. Symptoms may be delayed. Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use. Other dangerous properties can not be excluded.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity:

- 2-(2-Vinyloxyethoxy) ethyl acrylate

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50	96 h	Brachidanio rerio (zebra fish)	6.8 mg/l
	Method: OECD Test Guideline 203			
Toxicity to fish	NOEC	96 h	Brachidanio rerio (zebra fish)	2.2 mg/l
	Method: OECD Test Guideline 203			
Toxicity to fish	LC100	96 h	Brachidanio rerio (zebra fish)	10 mg/l
	Method: OECD Test Guideline 203			
Toxicity to daphnia	EC50	48 h	Daphnia magna	55 mg/l
	Method: OECD Test Guideline 202			
Toxicity to daphnia	EC100	48 h	Daphnia magna	100 mg/l
	Method: OECD Test Guideline 202			
Toxicity to daphnia	NOEC	48 h	Daphnia magna	25 mg/l
	Method: OECD Test Guideline 202			
Toxicity to algae	EC50	72 h	Scenedesmus subspicatus (algae)	5 mg/l
	Method: OECD Test Guideline 201			
Toxicity to algae	NOEC	72 h	scenedesmus subspicatus	0.78 mg/l
	Method: OECD Test Guideline 201			
Toxicity to algae	LOEC	72 h	scenedesmus subspicatus	2.7 mg/l
	Method: OECD Test Guideline 201			
Toxicity to bacteria	IC50	3 h		741 mg/l
	Method: OECD-Guideline No.209; 88/302/EEC C.11			

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- Oxybis(methyl-2,1-ethanediyl) diacrylate

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50	96 h	Leuciscus idus (golden orfe)	2.15 to 4.64 mg/l
	Method: Literature. Based on available data, the classification criteria are not met.			
Toxicity to daphnia	EC50	48 h	Daphnia magna	22.3 mg/l
	Method: Literature. Based on available data, the classification criteria are not met.			
Toxicity to algae	EC50	72 h	Algae	< 16.7 mg/l
	Method: Literature. Based on available data, the classification criteria are not met.			
Toxicity to bacteria	No data available			

- ethoxylated trimethylolpropane triacrylate

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50	96 h	Brachidanio rerio (zebra fish)	1.95 mg/l
	Method: OECD Test Guideline 203			
Toxicity to daphnia	EC50	48 h	Daphnia magna	7.07 mg/l
	Method: OECD Test Guideline 202			
Toxicity to algae		72 h	Desmodesmus subspicatus (algae)	2.2 mg/l
	Method: OECD Test Guideline 201			
Toxicity to bacteria	EC10	3 h		292 mg/l
	Method: OECD-Guideline No.209; 88/302/EEC C.11			

- 4-(1,1-dimethylethyl)cyclohexyl acrylate

	Effect dose	Exposure time	Species	Value
Toxicity to fish	LC50	96 h	Brachidanio rerio (zebra fish)	1 to 10 mg/l
	Method: OECD Test Guideline 203			
Toxicity to daphnia	EC50	48 h	Daphnia	0.772 mg/l
	Method: Literature.			
Toxicity to algae	EC50	96 h	Algae	0.091 mg/l
	Method: Literature.			
Toxicity to bacteria	EC50		Pseudomonas putida (bacteria)	> 1,000 mg/l
	Method: DIN 38412			

- 2-[[[(butylamino)carbonyl]oxy]ethyl]acrylate

	Effect dose	Exposure time	Species	Value
Toxicity to fish	No data available			
Toxicity to daphnia	No data available			
Toxicity to algae	No data available			
Toxicity to bacteria	No data available			

- 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

	Effect dose	Exposure time	Species	Value
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Toxicity to fish	LC50 96 h Brachidanio rerio (zebra fish)	9 mg/l
	Method: OECD Test Guideline 203	
Toxicity to daphnia	EC50 Daphnia magna	15.3 mg/l
	Method: OECD Test Guideline 202	
Toxicity to algae	EC50 scenedesmus subspicatus	1.7 mg/l
	Method: OECD Test Guideline 201	
Toxicity to bacteria	EC50	> 100 mg/l
	Method: OECD-Guideline No.209; 88/302/EEC C.11	

### 12.2 Persistence and degradability:

#### Physico-chemical removability

No data available

#### Chemical Oxygen Demand (COD)

No data available

#### Adsorbed organic bound halogens (AOX)

Product does not contain any organic halogens.

#### Biodegradation

No data available

#### Biochemical Oxygen Demand (BOD)

No data available

### 12.3 Bioaccumulative potential:

#### Partition coefficient (n-octanol/water)

No data available

#### Bioconcentration factor (BCF)

No data available

### 12.4 Mobility in soil:

No information available.

#### Henry's constant

Value	Temperature	Method
		No information available.

### Transport between environmental compartments

No data available

### 12.5 Results of PBT and vPvB assessment:

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

### 12.6 Other adverse effects:

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This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer. Avoid infiltration in to drinking supplies, waste water or soil. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods:

##### Waste disposal methods

Environmental regulations, discharge of chemicals and wastewater, waste treatment and disposal conditions of chemicals and their packaging may vary from one country to another. The relevant local regulations should be consulted. When this product or its contaminated packaging has to be removed as waste, contact an authorized waste contractor.

May be discharged to drain if local regulations permit.

##### Empty containers.

As the packaging can be contaminated with product residus, please observe the warnings of the label even when the container is empty. Do not reuse empty container without proper cleaning. Label precautions also apply to this container when empty.

For waste resulting from the expired product, it is recommended to use European Waste Code : 08 03 12 (waste ink containing dangerous substances).

### 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.

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### 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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.
H411	Toxic to aquatic life with long lasting effects.
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	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
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.

#### Further information

This Safety Data Sheet is compiled in accordance with European Directives and corresponding national legislation.

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. This safety data sheet contains an ES (if applicable) in an integrated form.

Contents of the exposure scenario have been included (if applicable) into sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet. The downstream user has to check whether his uses are covered by the integrated ES information in this safety data sheet.

#### Abbreviations

ADR: Accord européen relatif au transport international des marchandises

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ADNR:	Dangereuses par Route 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:	Occupational 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:	Threshold Limit Value
TRGS900:	Arbeitsplatzgrenswerte (GE)
TWA:	Time Weighted Average
VOC:	Volatile Organic Compound
vPvB:	very Persistent and very Bioaccumulative substance