

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006



KP010 KP011 KP012 DELETION PEN

SUBID : 000000010365

Version 3

Print Date 18.07.2008

Revision Date 17.07.2008

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

Identification of the substance/preparation

Product name : KP010 KP011 KP012 DELETION PEN

Use of the Substance/Preparation : Correction pen

Company/Undertaking Identification

Agfa-Gevaert Ltd.
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2. HAZARDS IDENTIFICATION

In normal conditions of storage, transport and use, the pencil will not cause any special health or safety hazard.

EC-classification:

Symbol(s)	: Xn	Harmful
R-phrases(s)	: R22	Harmful if swallowed.
	R36	Irritating to eyes.

3. COMPOSITION/INFORMATION ON 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 15. Full text of each relevant R-phrases is listed in section 16.

This correction pen mainly consists of a plastic housing enclosing a porous wick, which retains a very small quantity of corrector liquid. When not in use, the pen is closed with a protective cap. Labelling and hazard information in this Safety Data Sheet refers to the pure corrector liquid as retained in the wick.

Hazardous components

- | | | | | | |
|------------------------|----------------|---------------------|------|---|------|
| • gamma-Butyrolactone | | Concentration [%] : | 60.0 | - | 80.0 |
| CAS-No. | : 96-48-0 | | | | |
| EINECS-No. | : 202-509-5 | | | | |
| Symbol(s) | : Xn | | | | |
| R-phrases(s) | : R22, R36 | | | | |
| • Phosphoric acid | | Concentration [%] : | 1.0 | - | 5.0 |
| CAS-No. | : 7664-38-2 | | | | |
| Index-No. | : 015-011-00-6 | | | | |
| EINECS-No. | : 231-633-2 | | | | |
| Symbol(s) | : C | | | | |
| R-phrases(s) | : R34 | | | | |
| • Polycarboxylic acids | | Concentration [%] : | 1.0 | - | 5.0 |

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CAS-No.	:	26099-09-2			
Symbol(s)	:	Xi			
R-phrased(s)	:	R36/38			
• Tetrafluoroboric acid			Concentration [%] :	0.1 - 0.5	
CAS-No.	:	16872-11-0			
Index-No.	:	009-010-00-X			
EINECS-No.	:	240-898-3			
Symbol(s)	:	C			
R-phrased(s)	:	R34			

4. FIRST AID MEASURES

Eye contact	:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	:	Wash immediately with plenty of water and soap. Apply calcium gluconate gel on and around the affected area and continuous massage it into the skin until at least 15 minutes after pain is relieved. Cover the area with a dressing soaked in the gel and lightly bandage. Seek medical attention.
Ingestion	:	Rinse mouth with plenty of water. Seek medical advice.
Inhalation	:	Take person to fresh air. If necessary, seek medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	e.g. water, CO ₂ , foam, powder, sand.
Specific hazards during fire fighting	:	Combustion of one pencil will not cause a major problem to health, safety and to the environment. When burning large amounts of pencils, hazardous fumes can be set free. Their composition is depending on the conditions of the combustion process and will not substantially differ from that resulting from merely burning plastic housings and caps of such pencils.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	See section : Exposure controls / personel protection.
Additional advice	:	Wash away residues with plenty of water.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	In normal conditions of storage, transport and use, the liquid will not leak from the pencil.
Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values

Components	CAS-No.	Values	Type	Revision	Basis
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				Date	
Phosphoric acid	7664-38-2	1 mg/m3	TWA	05 2001	EU ELV
		2 mg/m3	STEL	05 2001	EU ELV
		1 mg/m3	TWA	2005	EH40 WEL
		2 mg/m3	STEL	2005	EH40 WEL

Exposure controls

- Engineering measures : Ventilation should be sufficient so that any applicable occupational exposure limits are not exceeded.
- Hygiene measures : Observe normal precautions when handling chemicals. Avoid inhaling vapour. Don't wear the correction pen on your body. Avoid that the tip of the wick comes into contact with the eyes and the skin. Always apply the protective cap to the pen, when the latter is not in use. Unproper handling, such as licking the wick, inhaling the corrector liquid or breaking and opening the pen, so as to set free the wick, is to be avoided. Keep away from foodstuffs, drinks and tobacco.
- Hand protection : Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butyl rubber (thickness \geq 0.36 mm, breakthrough time $>$ 480 min), nitrile rubber (thickness \geq 0.38 mm, breakthrough time $>$ 480 min) or neoprene (thickness \geq 0.65 mm, breakthrough time $>$ 240 min). For intermittent splash protection corresponding gloves with breakthrough times $>$ 60 min can be used. Avoid gloves made of: natural latex.
- Eye protection : Safety glasses.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

- Form : Liquid.
- Colour : Colourless.
- Odour : Pungent smell

Important Health Safety and Environmental Information

- Solubility/qualitative : Miscible with water at all ratios.
- pH : Not applicable
- Melting point/range : $<$ 0 °C
- Boiling point/range : $>$ 100 °C
- Relative vapour density : Not applicable

10. STABILITY AND REACTIVITY

- Stability : The product is stable under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Harmful if swallowed.
Irritating to eyes.

Toxicity data specific for individual ingredients in their pure state:

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Acute oral toxicity

- gamma-Butyrolactone : LD50 rat 1,540 mg/kg
- Phosphoric acid : LD50 rat 1,530 mg/kg
- Polycarboxylic acids : LD50 rat > 2,000 mg/kg
- Tetrafluoroboric acid : LD50 rat 464 mg/kg

Acute inhalation toxicity

- gamma-Butyrolactone : LC50 rat > 5.1 mg/l/ 4 h
- Phosphoric acid : LC50 rat > 0.2 mg/l/ 4 h

Acute dermal toxicity

- gamma-Butyrolactone : LD50 guinea pig > 5,000 mg/kg
- Phosphoric acid : LD50 rabbit 2,740 mg/kg

Other information

Hazard labelling of the corrector liquid: see section 15.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradation

- gamma-Butyrolactone : OECD 302B Inherent biodegradability > 90 % after 28 d

Ecotoxicity effects

Ecotoxicity data specific for individual ingredients in their pure state:

Toxicity to fish

- gamma-Butyrolactone : Species: Leuciscus idus (golden orfe)
LC50: > 220 mg/l/ 96 h
- Polycarboxylic acids : Species: Brachidanio rerio (zebra fish)
LC50: > 100 mg/l/ 96 h

Toxicity to daphnia

- gamma-Butyrolactone : Species: Daphnia magna (water flea)
EC50: > 500 mg/l/ 48 h
- Phosphoric acid : Species: Daphnia magna (water flea)
EC50: > 100 mg/l/ 96 h
- Polycarboxylic acids : Species: Daphnia magna (water flea)
EC50: > 1,000 mg/l/ 48 h

Toxicity to algae

- gamma-Butyrolactone : Species: Scenedesmus subspicatus (algae)
EC50: 360 mg/l/ 72 h

Toxicity to bacteria

- gamma-Butyrolactone : Species: Pseudomonas putida (bacteria)
EC50: > 10,000 mg/l/ 17 h
- Phosphoric acid : Species: Pseudomonas putida (bacteria)
EC50: 270 mg/l/ 16 h

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The corrector liquid does not contain any ingredient that is classified as hazardous to the environment according to European Directives and corresponding national legislation.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Used correction pencils are considered industrial waste. Refer to local provisions and regulations on disposal of such waste.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label :

- | | | |
|--------------|-----------|---|
| • CAS-No. | : 96-48-0 | gamma-Butyrolactone |
| Symbol(s) | : Xn | Harmful |
| R-phrases(s) | : R22 | Harmful if swallowed. |
| | : R36 | Irritating to eyes. |
| S-phrases(s) | : S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |

16. OTHER INFORMATION

Further information

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

- | | |
|--------|------------------------------|
| R22 | Harmful if swallowed. |
| R34 | Causes burns. |
| R36 | Irritating to eyes. |
| R36/38 | Irritating to eyes and skin. |

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

This product is not manufactured by Agfa. The information disclosed in this Safety Data Sheet has been provided by the manufacturer.

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.