

# SAFETY DATA SHEET

Kodak Polychrome Graphics  
A Subsidiary of Kodak

## 231 Correction Fluid for Negative Plates

### 1. Identification of the substance/preparation and of the company/undertaking

#### Identification of the substance or preparation

**Product name** : 231 Correction Fluid for Negative Plates **Nr. SDS** : 70042

**Date of issue** : 2006-10-11.

**Catalogue number** : 9061961; 9057431; 9056664; 9056656; 9056649; 9053786; 9046343; 9046335 **Version** : 4.3

**Area of application** : Industrial applications. Graphic Arts product. Correction material / agent.

#### Company/undertaking identification

**Supplier** : Kodak Polychrome Graphics Europe S.A.  
8, Avenue François Arago  
Zone Industrielle BP 116  
92164 Antony Cedex  
France

**Emergency telephone number** :

**Emergency telephone number: Int. + 31.30.2748888.**  
**(Dutch National Poison Information Centre) Only for physicians and medical specialists in case of an accidental poisoning.**

**For other EHS Information** : Kodak Polychrome Graphics EHS-Affairs EU/AF/AS/AU  
P.O. Box 56, 3750 GB Bunschoten, The Netherlands  
Phone: Int. +31 33 299 88 80  
Fax: Int. +31 33 299 88 89  
E-mail: EHS-EU@kpgraphics.com

**Sale Rep** :  
Kodak Polychrome Graphics Ltd.  
Axis 1, Rhodes Way,  
Watford Herts, WD2 4FD, Great Britain  
Phone: +44 1923 23 66 66  
Fax: +44 1923 24 47 14

### 2. Composition/information on ingredients

**Substance/preparation** : Preparation

Ingredient name	CAS number	%	EC number	Symbol / R-Phrases
Water	7732-18-5	40-70	231-791-2	Not classified.
Cyclohexanone	108-94-1	25-40	203-631-1	R10 Xn; R20
Alcohols, C12-C18, ethoxylated	68213-23-0	5-10	-	Xi; R36/38
Ammonium hydrogen bifluoride	1341-49-7	1-5	215-676-4	T; R25 C; R34
Methyloxirane-oxirane copolymer	9003-11-6	1-5	-	Not classified.

See section 16 for the full text of the R Phrases declared above

Within the present knowledge of the supplier, this product does not contain any other hazardous ingredients in quantities requiring reporting in this section, in accordance with EU regulations or National regulations.

\* Occupational Exposure Limit(s), if available, are listed in section 8

### 3. Hazards identification

**Main hazards** : Corrosive

**Human health hazards** : Harmful by inhalation and if swallowed.  
Causes burns.

**Environmental hazards** : Not applicable.

**Physical/chemical hazards** : Flammable.

**Date of issue** : 2006-10-11.

Page: 1/5

## 231 Correction Fluid for Negative Plates

**Classification** : R10  
Xn; R20/22  
C; R34

## 4. First aid measures

### First aid measures

- Inhalation** : Allow the victim to rest in a well-ventilated area. If irritation persists, get medical attention.
- Ingestion** : Do not induce vomiting. Have conscious person drink several glasses of water or milk. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, get medical attention. Wash contaminated clothing before reusing.
- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

See section 11 for more detailed information on health effects and symptoms.

## 5. Fire-fighting measures

### Extinguishing media

- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : No specific hazard.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).
- Special protective equipment for fire-fighters** : Be sure to use an approved/certified respirator or equivalent.

## 6. Accidental release measures

- Personal precautions** : Face shield. Lab coat. Butyl gloves. In case of insufficient ventilation, wear suitable respiratory equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : Absorb with an inert material and put the spilled material in an appropriate waste disposal. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

## 7. Handling and storage

- Handling** : Do not ingest. Avoid contact with eyes, skin and clothing. Do not breathe gas/fumes/vapor/spray. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Use only with adequate ventilation. Wash thoroughly after handling.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready to use. Avoid all possible sources of ignition (spark or flame). Prevent from freezing.

### Packaging materials

- Recommended** : Use original container.

## 8. Exposure controls/personal protection

### Ingredient name

#### Europe

Cyclohexanone

### Occupational exposure limits

**EU OEL (Europe, 2/2006). Skin**

STEL: 81.6 mg/m<sup>3</sup> 15 minute/minutes.

TWA: 40.8 mg/m<sup>3</sup> 8 hour/hours.

Ammonium hydrogen bifluoride

**EU OEL (Europe, 2/2006).**

TWA: 2.5 mg/m<sup>3</sup> 8 hour/hours. Form: As F

#### United Kingdom (UK)

Cyclohexanone

**EH40-WEL (United Kingdom (UK), 1/2005). Skin**

STEL: 20 ppm 15 minute/minutes.

TWA: 10 ppm 8 hour/hours.

Ammonium hydrogen bifluoride

**EH40-WEL (United Kingdom (UK), 1/2005).**

TWA: 2.5 mg/m<sup>3</sup> 8 hour/hours. Form: As F

**Exposure controls**

- Occupational exposure controls** : Ventilation is normally required when handling or using this product (typically 10 air changes per hour). Ensure that eyewash stations and safety showers are close to the work-station location.
- Hygiene measures** : Wash hands after handling compounds and before eating, smoking and using the lavatory and at the end of the day.
- Respiratory protection** : A respirator is not needed under normal and intended conditions of product use.
- Hand protection** : Use chemical resistant gloves.  
In case of prolonged immersion or frequently repeated contact use gloves made of butyl rubber (thickness  $\geq$  0.76 mm, breakthrough time > 360 min).  
Avoid gloves made of: neoprene.
- Eye protection** : Face shield.
- Skin protection** : Lab coat

**9. Physical and chemical properties**

- Physical state** : Liquid.
- Color** : White.
- Odor** : Ammoniacal.
- pH** : 3 to 4 [Acidic.]
- Boiling point** : 155°C
- Melting point** : Not available.
- Specific gravity** : 1.03 (Water = 1)
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Flammability** : Flammable.
- Flash point** : Open cup: 38.5°C
- Explosion limits** : Lower: 1.3% Upper: 9.4%
- Auto-ignition temperature** : 430°C
- Solubility** : Very slightly soluble in cold water.
- VOC** : 362 (g/l).

**10. Stability and reactivity**

- Stability** : The product is stable.
- Conditions to avoid** : Not available.
- Materials to avoid** : Incompatible with strong oxidizing agents.
- Hazardous decomposition products** : These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**11. Toxicological information****Potential acute health effects**

- Inhalation** : Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Harmful by inhalation.
- Ingestion** : May cause burns to mouth, throat and stomach. Harmful if swallowed.
- Skin contact** : Corrosive to the skin. Skin contact may produce burns.
- Eye contact** : Corrosive to eyes. Eye contact can result in corneal damage or blindness.

**Acute toxicity**

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Cyclohexanone	LD50	1535 mg/kg	Oral	Rat
	LD50	948 mg/kg	Dermal	Rabbit
	LC50	32.16 mg/l (4 hour/hours)	Inhalation	Rat
Alcohols, C12-C18, ethoxylated	LD50	>2000 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Oral	Rat
Ammonium hydrogen bifluoride	LD50	130 mg/kg	Oral	Rat

**Potential chronic health effects**

<u>Ingredient name</u>	<u>Carcinogenic effects</u>	<u>Mutagenic effects</u>	<u>Developmental toxicity</u>	<u>Impairs fertility effects</u>
------------------------	-----------------------------	--------------------------	-------------------------------	----------------------------------

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.

## 231 Correction Fluid for Negative Plates

**Reproductive toxicity** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Inhalation** : Inhalation of the spray or mist may produce severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath.

**Ingestion** : May cause burns to mouth, throat and stomach. Harmful if swallowed.

**Skin** : Prolonged exposure may result in skin burns and ulcerations.

**Other adverse effects** : Not available.

## 12. Ecological information

### Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Cyclohexanone	Fish (LC50)	96 hour/hours	536 mg/l
	Daphnia (EC50)	48 hour/hours	820 mg/l
Alcohols, C12-C18, ethoxylated	Leuciscus idus (LC50)	96 hour/hours	3 mg/l
Ammonium hydrogen bifluoride	Fish (LC50)	96 hour/hours	>100 mg/l
	Fish (LC50)	96 hour/hours	>100 mg/l

### Other ecological information

#### Persistence/degradability

<u>Ingredient name</u>	<u>BOD<sub>5</sub></u>	<u>COD</u>	<u>ThOD</u>
Cyclohexanone	0.8336 g O <sub>2</sub> /g	2.605 g O <sub>2</sub> /g	2.605 g O <sub>2</sub> /g
Alcohols, C12-C18, ethoxylated	790 mg/kg	2160 mg/kg	-

<u>Ingredient name</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>
Cyclohexanone	-	-	Inherent
Alcohols, C12-C18, ethoxylated	-	-	Inherent

<u>Ingredient name</u>	<u>LogP<sub>ow</sub></u>	<u>BCF</u>	<u>Potential</u>
Cyclohexanone	Not available.	Not available.	Not available.
Alcohols, C12-C18, ethoxylated	Not available.	Not available.	Not available.

**Mobility** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations



**Methods of disposal** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste classification** : This product is listed as Hazardous by the EU Directive on hazardous waste. Dispose of according to all national and local applicable regulations.

**European waste catalogue (EWC)** : 09 01 99 + 15 01 10\*

## 14. Transport information


### International transport regulations

<u>Regulatory information</u>	<u>UN number</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>Packing group</u>	<u>Label</u>	<u>Additional information</u>
<b>ADR/RID Class</b>	UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Ammonium hydrogen bifluoride, Cyclohexanone)	8	II		<b>CEPIC Tremcard</b> 80GCF1-II
<b>IMDG Class</b>	UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ammonium hydrogen bifluoride, cyclohexanone)	8	II		<b>Emergency schedules (EmS)</b> F-E; S-C

**Date of issue** : 2006-10-11.

**Page:** 4/5

## 231 Correction Fluid for Negative Plates

<b>IATA-DGR Class</b>	UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ammonium hydrogen bifluoride, cyclohexanone)	8	II		
-----------------------	--------	---	---	----	---	--

## 15. Regulatory information

### EU Regulations

#### Hazard symbol/symbols



Corrosive

#### R-Phrases

- : R10- Flammable.
- R20/22- Harmful by inhalation and if swallowed.
- R34- Causes burns.

#### S-Phrases

- : S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
- S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### Contains

- : Cyclohexanone
- Ammonium hydrogen bifluoride

## 16. Other information

#### Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)

- : R10- Flammable.
- R25- Toxic if swallowed.
- R20- Harmful by inhalation.
- R20/22- Harmful by inhalation and if swallowed.
- R34- Causes burns.
- R36/38- Irritating to eyes and skin.

#### Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK)

- : T - Toxic
- C - Corrosive
- Xn - Harmful
- Xi - Irritant

#### Revision comments

- : Section : 7; 8; 11; 12; 16

#### History

**Date of printing** : 2006-10-11.

**Date of issue** : 2006-10-11.

**Date of previous issue** : 2006-02-16.

**Version** : 4.3

**Prepared by** : Kodak Polychrome Graphics, EHS-EU/AF/AS/AU, Bunschoten, NL

#### Notice to reader

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*