Conforms to 91/155/EEC - 2001/58/EC

SAFETY DATA SHEET

Kodak Polychrome Graphics
A Subsidiary of Kodak

KODAK RA 3000 Fixer and Replenisher, Part A

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

Identification of the substance or preparation

Product name : KODAK RA 3000 Fixer and Replenisher, Part A

Nr. SDS : 20072

Synonyms : PCD 1567

Date of issue : **2006-08-18.**

Catalogue number : 3772258; 3727849; 3665833; 3488913; 3458775

Version : **4.2**

Area of application : Industrial applications. Graphic Arts product. Photographic fixer.

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
Ammonium thiosulfate	7783-18-8	40-70	231-982-0	Not classified.
Water	7732-18-5	40-70	231-791-2	Not classified.
Sodium bisulfite	7631-90-5	1-5	231-548-0	Xn; R22 R31
Acetic acid	64-19-7	1-5	200-580-7	R10 C; R35
Sodium acetate	127-09-3	1-5	204-823-8	Not classified.
Boric acid	10043-35-3	1-5	233-139-2	Not classified.
Ammonium acetate	631-61-8	1-5	211-162-9	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 :

Human health hazards : Not applicable.

Environmental hazards : Not applicable.

Physical/chemical hazards : Not applicable.

Classification : Not classified.

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.

Skin contact : After contact with skin, wash immediately with plenty of water. If irritation persists, get medical attention.

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. If irritation persists, get medical attention.

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

5. Fire-fighting measures

Extinguishing media

Suitable : Use dry chemical, CO_2, water spray (fog) or foam.

Not suitable : None.

Special exposure hazards : No specific hazard.

Hazardous thermal decomposition products : These products are carbon oxides (CO, CO_2), sulfur oxides (SO_2, SO_3...). nitrogen oxides (NO, NO_2 etc.)

Special protective equipment for fire-fighters : Be sure to use an approved/certified respirator or equivalent.

6. Accidental release measures

Personal precautions : Splash goggles. Lab coat. Nitrile 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 place in an appropriate waste disposal container. 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 prolonged contact with eyes, skin and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area. Prevent from freezing.

Packaging materials

Recommended : Use original container.

8. Exposure controls/personal protection

Ingredient name	Occupational exposure limits
Europe	
Sodium bisulfite	**ACGIH TLV (United States, 1/2006).** TWA: 5 mg/m³ 8 hour/hours.
Acetic acid	**EU OEL (Europe, 2/2006).** TWA: 25 mg/m³ 8 hour/hours.
Boric acid	**ACGIH TLV (United States, 1/2006).** STEL: 6 mg/m³ 15 minute/minutes. TWA: 2 mg/m³ 8 hour/hours.
United Kingdom (UK)	

Sodium bisulfite	**EH40-WEL (United Kingdom (UK), 1/2005).** TWA: 5 mg/m³ 8 hour/hours.
Acetic acid	**EH40-WEL (United Kingdom (UK), 1/2005).** STEL: 37 mg/m³ 15 minute/minutes. TWA: 25 mg/m³ 8 hour/hours.

Exposure controls

Occupational exposure controls : Ventilation is normally required when handling or using this product. Ensure that eyewash stations and safety showers are close to the workstation 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 the materials:
butyl rubber (thickness >= 0.36 mm, breakthrough time > 480 min),
nitrile rubber (thickness >= 0.38 mm, breakthrough time > 480 min) or
neoprene (thickness >= 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 rubber.

Eye protection : Splash goggles.

Skin protection : Lab coat.

9. Physical and chemical properties

Physical state : Liquid.

Color : Yellow.

Odor : Sulfurous. Acetic acid. (Slight.)

pH : 5.1 [Acidic.]

Boiling point : >100°C

Melting point : <0°C

Specific gravity : 1.3 (Water = 1)

Vapor pressure : 2.4 kPa (18 mm Hg) (at 20°C)

Vapor density : 0.6 (Air = 1)

Flammability : Non-flammable.

Solubility : Easily soluble in cold water.

VOC : 49 (g/l).

10. Stability and reactivity

Stability : The product is stable.

Conditions to avoid : Not available.

Materials to avoid : Incompatible with strong oxidizing agents. Incompatible with some strong acids. Incompatible with some alkalis.

Hazardous decomposition products : These products are carbon oxides (CO, CO_2), sulfur oxides (SO_2, SO_3...). nitrogen oxides (NO, NO_2 etc.)

11. Toxicological information

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : No known significant effects or critical hazards.

Acute toxicity

Ingredient name	Test	Result	Route	Species
Sodium bisulfite	LD50	2000 mg/kg	Oral	Rat
Acetic acid	LD50	3310 mg/kg	Oral	Rat
	LD50	1060 mg/kg	Dermal	Rabbit
Boric acid	LD50	>3000 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Dermal	Rabbit
	LC50	>2 mg/l (4 hour/hours)	Inhalation	Rat

Potential chronic health effects

Ingredient name	Carcinogenic effects	Mutagenic effects	Developmental toxicity	Impairs fertility

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Other adverse effects : Not available.

12. Ecological information

Ecotoxicity data

Ingredient name	Species	Period	Result
Sodium bisulfite	Mosquitofish (Gambusia affinis) (LC50)	96 hour/hours	240 mg/l
	Daphnia (EC50)	48 hour/hours	119 mg/l
Acetic acid	Snake-head catfish (LC50)	96 hour/hours	>10 mg/l
Boric acid	Fish (LC50)	96 hour/hours	600 mg/l
	Daphnia (EC50)	48 hour/hours	226 mg/l

Other ecological information

Persistence/degradability

Ingredient name	BOD_5	COD	ThOD
Acetic acid	0.74 g O_2/g	1 g O_2/g	1.07 g O_2/g

Ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetic acid	1 to 10 day/days	-	Readily

Bioaccumulative potential

Ingredient name	$LogP_{ow}$	BCF	Potential
Acetic acid	-0.2		low

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 : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

European waste catalogue (EWC) : 09 01 04*

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	Not regulated.					
IMDG Class	Not regulated.					
IATA-DGR Class	Not regulated.					

15. Regulatory information

EU Regulations

R-Phrases : This product is not classified according to EU legislation.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK) : R10- Flammable.
R22- Harmful if swallowed.
R35- Causes severe burns.
R31- Contact with acids liberates toxic gas.

Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK) : C - Corrosive
Xn - Harmful

Revision comments : Section : 7; 8; 11; 12; 13; 16

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

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