

SAFETY DATA SHEET

Kodak Polychrome Graphics
A Subsidiary of Kodak

KODAK RA 3010 Fixer and Replenisher

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

Identification of the substance or preparation

Product name : KODAK RA 3010 Fixer and Replenisher **Nr. SDS** : 20212

Synonyms :

Catalogue number : 3707643 **Date of issue** : 2006-02-06.

Area of application : Industrial applications. Graphic Arts product. Photographic fixer. **Version** : 4.11

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.
Ammonium thiosulfate	7783-18-8	25-40	231-982-0	Not classified.
Acetic acid	64-19-7	1-5	200-580-7	R10 C; R35
Ammonium acetate	631-61-8	1-5	211-162-9	Not classified.
Ammonium hydrogen sulfite	10192-30-0	1-5	233-469-7	C; R34 R31

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 chemicals, CO₂, water spray or foam.
- Not suitable** : None.
- Special exposure hazards** : No specific hazard.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO₂), sulfur oxides (SO₂, SO₃ etc.), nitrogen oxides (NO, NO₂ 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 put the spilled material in an appropriate waste disposal. 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. Ventilation is normally required when handling or using this product (typically 10 air changes per hour). 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

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Europe Acetic acid	EU OEL (Europe, 4/2004). TWA: 25 mg/m ³ 8 hour/hours.
United Kingdom (UK) Acetic acid	EU OEL (Europe, 4/2004). TWA: 25 mg/m ³ 8 hour/hours.

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 workstation location.
- Hygiene measures** : Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.
- Respiratory protection** : A respirator is not needed under normal and intended conditions of product use.

KODAK RA 3010 Fixer and Replenisher

- 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 rubber.
- Eye protection** : Splash goggles
- Skin protection** : Lab coat

9. Physical and chemical properties

- Physical state** : Liquid.
- Color** : Yellow. (Light.)
- Odor** : Sulfurous. Acetic acid. (Slight.)
- pH** : 5.5 [Acidic.]
- Boiling point** : >100°C (212°F)
- Melting point** : <0°C (32°F)
- Specific gravity** : 1.24 (Water = 1)
- Vapor pressure** : 2.4 kPa (@ 20°C)
- Vapor density** : 0.6 (Air = 1)
- Flammability** : Non-flammable.
- Solubility** : Easily soluble in cold water .
- VOC** : 50 (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, CO₂), sulfur oxides (SO₂, SO₃ etc.), nitrogen oxides (NO, NO₂ 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

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Acetic acid	LD50	3310 mg/kg	Oral	Rat
	LD50	1060 mg/kg	Dermal	Rabbit

Potential chronic health effects

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

Acetic acid
Ammonium hydrogen sulfite

Species

Snake-head catfish (LC50)
Mosquitofish (Gambusia affinis) (LC50)

Period

96 hour(s)
96 hour(s)

Result

>10 mg/l
410 mg/l

Other ecological information

Persistence/degradability

Ingredient name

Acetic acid

BOD₅

COD

1 g O₂/g

ThOD

1.07 g O₂/g

Ingredient name

Acetic acid

Aquatic half-life

1 to 10 day(s)

Photolysis

Biodegradability

Readily

Bioaccumulative potential

Ingredient name

Not available.

LogP_{ow}

-0.2

BCF

Potential

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) : Not applicable.

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 the EU regulations.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK) : R10- Flammable.
R34- Causes burns.
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

Revision comments : Section : 8; 16

History

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Version : 4.11

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

Notice to reader

Date of issue : 2006-02-06.

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.

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