

SAFETY DATA SHEET

Kodak Polychrome
GRAPHICS

KODAK RA2011 Developer

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

Product name : KODAK RA2011 Developer **Nr. SDS** : 11272
Synonyms : PCD K00214; PCD F1576 **Date of issue** : 2002-04-09.
Catalogue number : 3706439 **Version** : 4
Supplier : Kodak Polychrome Graphics Europe S.A.
8, Avenue François Arago
Zone Industrielle BP 116
92164 Antony Cedex
France
Area of Application : Industrial applications Graphic Arts product.
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
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Sale Rep :
Kodak Polychrome Graphics Ltd.
Axis 1, Rhodes Way,
Watford Herts, WD2 4FD, Great Britain
Phone: +44 1923 23 66 66
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2. Composition / information on ingredients

Substance/Preparation : Preparation.

Chemical name	CAS Number	%	EC Number	Symbol	R-Phrases
Water	7732-18-5	70-80	231-791-2	-	-
Diethylene glycol	111-46-6	5-10	203-872-2	Xn	R22
Hydroquinone	123-31-9	1-5	204-617-8	Xn, N	R22, R41, R43, R50, R40, R68
Potassium carbonate	584-08-7	1-5	209-529-3	Xi	R36
Potassium sulfite	10117-38-1	1-5	233-321-1	-	-
Sodium sulfite	7757-83-7	1-5	231-821-4	Xi	R31, R36/37/38

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

There are no other components present which, to the best of our current knowledge and in the concentrations applied, are hazardous to health or environment.

3. Hazards identification

Physical/chemical hazards : None.
Human health hazards : Harmful
Limited evidence of a carcinogenic effect.
Possible risks of irreversible effects.
May cause sensitization by skin contact.

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 : INDUCE VOMITING by sticking finger in throat. Have conscious person drink several glasses of water or milk. Seek medical attention.
Skin Contact : In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms appear.
Eye Contact : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Seek medical attention.

5. Fire-fighting measures

Extinguishing media

Suitable	: Use DRY chemicals, CO ₂ , water spray or foam.
Not suitable	: None.
Unusual fire/explosion hazards	: None.
Hazardous thermal (de)composition products	: These products are carbon oxides (CO, CO ₂), sulfur oxides (SO ₂ , SO ₃ ...).
Protection of fire-fighters	: Be sure to use an approved/certified respirator or equivalent.
Hazchem Code	: 2T

6. Accidental Release Measures

Personal precautions	: Splash goggles. Lab coat. Nitrile gloves. Ventilation is normally required when handling or using this product (typically 10 air changes per hour).
Environmental Precautions and Clean-up Methods	: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Neutralize the residue with a dilute solution of acetic acid. 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. Do not get in eyes. Avoid contact with skin and clothing. Use with adequate ventilation. Wash thoroughly after handling.
Storage	: Keep container tightly closed in a cool, well-ventilated place. Prevent from freezing
<u>Packaging materials</u>	
Suitable / Not suitable	: Use original container.

8. Exposure Controls and Personal Protection

Engineering Controls	: Ventilation is normally required when handling or using this product (typically 10 air changes per hour). Ensure that eyewash station and safety shower is proximal to the work-station location.
Hygiene measures	: Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.
Occupational Exposure Limits	: Not available.

Ingredient Name

No hazardous ingredient.

United Kingdom (UK)

No hazardous ingredient.

Personal protective equipment

Respiratory system	: Wear appropriate respirator when ventilation is inadequate.
Skin and body	: Lab coat.
Hands	: Nitrile gloves.
Eyes	: Splash goggles.

9. Physical and Chemical Properties

Physical State and Appearance	: Liquid.
Color	: Yellow. (Light.)
Odor	: Slight.
Boiling Point	: >100°C (212°F)
Melting Point	: <0°C (32°F)
Specific Gravity	: 1.11 (Water = 1)
Vapor Density	: 0.6 (Air = 1)
Vapor Pressure	: 2.4 kPa (@ 20°C)
Solubility	: Easily soluble in cold water
pH	: 10.4 [Basic.]
Viscosity	: Not available.

10. Stability and Reactivity

Stability	: The product is stable.
Incompatibility	: Incompatible with strong oxidizing agents.
Hazardous Decomposition Products	: These products are carbon oxides (CO, CO ₂), sulfur oxides (SO ₂ , SO ₃ ...).

11. Toxicological Information

Acute Data (LD ₅₀ , LC ₅₀) - Toxicity to Test Animals	Water:	
	ORAL (LD50):	Acute: >90000 mg/kg [Rat].
	Diethylene glycol:	
	ORAL (LD50):	Acute: 12565 mg/kg [Rat].
	DERMAL (LD50):	Acute: 11890 mg/kg [Rat, Rabbit].
	Hydroquinone:	
	ORAL (LD50):	Acute: 320 mg/kg [Rat].
	DERMAL (LD50):	Acute: 900 mg/kg [Rat, Rabbit].
	Potassium carbonate:	
	ORAL (LD50):	Acute: 2000 mg/kg [Rat].
	Potassium sulfite	
	LD50:	Not available.
	LC50:	Not available.
Sodium sulfite:		
ORAL (LD50):	Acute: 6400 mg/kg [Rat].	

Specific effects

Hydroquinone has been classified as a Category 3 mutagen and carcinogen by the European Union based on testing of rats and mice given hydroquinone by stomach tube or at high dietary levels. The International Agency for Research on Cancer (IARC) under ranking for cancer potential has classified hydroquinone in Group 3, i.e. "not classifiable" as a carcinogen. In the European Union a Category 3 mutagen or carcinogen attracts the risk phrase R40 "Limited evidence of a carcinogenic effect." and R68 "Possible risk of irreversible effects" at concentrations above 1%. Exposure to products containing such substances should be controlled to below established control limits and special care should be taken with pregnant of breast-feeding women to ensure appropriate controls are in place to control the risk.

12. Ecological Information

Persistence/degradability	: Not available.
Bioconcentration factor (BCF)	:
Ecotoxicity	: Ecotoxicity in water (LC50): 10000 mg/l, 96 hours [Fish]. (Diethylene glycol). 130 mg/l, 96 hours [Fish]. (Potassium sulfite). 2600 mg/l, 96 hours [Fish]. (Sodium sulfite). 69 mg/l, 48 hours [Daphnia]. (Sodium sulfite).

13. Disposal Consideration

Methods of disposal	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
EWC-Code (European Waste Catalogue number)	: 09 01 01 + 15 01 10
Waste of residues	

14. Transport Information

International transport regulations

UN number : Not regulated.

Land - Road/Railway

Sea

Air

15. Regulatory Information

EU Regulations

Hazard symbol(s) :



(Xn)-Harmful

Risk Phrases : R40- Possible risks of irreversible effects.
R43- May cause sensitization by skin contact.

Safety Phrases : S24- Avoid contact with skin.
S36/37- Wear suitable protective clothing and gloves.

Contains : - Hydroquinone

16. Other Information

HISTORY

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Prepared by : Kodak Polychrome Graphics, EHS-EU/AF/AS/AU, Soest, 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.

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