

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 1/11



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

Product name: KODAK ACCUMAX Rapid Access Developer and Replenisher

Product code: 5272869 - MEGA PART NUMBER: **57-61718**

Supplier: KODAK LIMITED, Hemel One, Boundary Way, Hemel Hempstead, HP2 7YU, Great Britain

IN EMERGENCY, telephone: 0870-2430270. Available during office hours only.

For further information about this product, telephone 0870-2430270 or email kes@kodak.com.

Synonyms: 5166

Product Use: photographic processing chemical, For industrial use only.

2. Hazards identification

This Safety Data Sheet conforms to REACH Regulation (EC) 1907/2006.

Product: Harmful, Dangerous for the environment. Limited evidence of a carcinogenic effect. Possible risk of irreversible effects. Irritating to eyes. May cause sensitization by skin contact. Very toxic to aquatic organisms.

3. Composition/information on ingredients

Weight %	Component	CAS-No.	EINECS-No./ ELINCS No.	Classification
15 - 20	potassium sulphite	10117-38-1	233-321-1	**
5 - 10	Hydroquinone	123-31-9	204-617-8	Xn, N; Carc.Cat.3; Mut.Cat.3; R22, R40, R41, R43, R50, R68*
1 - 5	Sodium carbonate			

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 2/11

	497-19-8	207-838-8	Xi; R36*
1 - 5	sodium bromide		
	7647-15-6	231-599-9	**

* Symbol and R Phrase according to EC Annex I

** Substance not listed in EC Annex I

4. First aid measures

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms occur.

Eyes: In case of contact with eyes, flush immediately with plenty of water and seek medical attention.

Skin: Immediately flush with plenty of water for at least 15 minutes and wash using soap. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion: Do NOT induce vomiting. Give victim a glass of water. Get medical attention immediately. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

Extinguishing Media: The product is not flammable. Use appropriate agent for adjacent fire.

Special Fire-Fighting Procedures: No special fire fighting procedure is necessary.

Hazardous Combustion Products: None., (see also Stability and Reactivity section).

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Personal precautions: See Section 8 for recommendations on the use of personal protective equipment.

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 3/11

Environmental precautions: Prevent spillage from entering drains. Absorb spill with vermiculite or other inert absorbant material such as sand or earth, then place in a suitable container for proper disposal. Clean surface thoroughly with water to remove residual contamination.

Waste disposal: Contaminated absorbent should be disposed of in accordance with local regulations.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Prevention of Fire and Explosion: No special technical protective measures required.

Storage: Cool conditions (5 - 30°C). Keep container closed. Keep away from incompatible substances (see Incompatibility section.)

Ventilation: Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8). Good general ventilation of 10 or more room volumes per hour in the work area is recommended.

8. Exposure controls/personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Hydroquinone	EH40	time weighted average	0.5 mg/m ³
		Short term exposure limit	1.5 mg/m ³
Hydroquinone	HSA	time weighted average	0.5 mg/m ³
		Sulphur dioxide	time weighted average
		Short term exposure limit	5 ppm 13 mg/m ³

Ventilation: Avoid exposure to mists and vapours by mixing solutions in closed vessels and/or under local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions.

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 4/11

Respiratory protection: In case of insufficient ventilation, wear personal respiratory protection designed to protect against both aerosols and acid gas.

Eye protection: Wear safety glasses with side shields or protective goggles whenever mixing or handling solutions.

Skin and body protection: Using the information provided in Section 2, seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when mixing or handling the substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material	Thickness	Breakthrough time
Nitrile rubber	>= 0.38 mm	> 480 min
Neoprene	>= 0.65 mm	> 240 min
butyl-rubber	>= 0.36 mm	> 480 min

Avoid natural rubber gloves.

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and chemical properties

Physical form: liquid

Colour: off-white

Odour: odourless

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 5/11

Specific gravity: 1.26

Vapour pressure (at 20.0 °C (68.0 °F)) : 24 mbar (18.0 mm Hg)

Vapour density: 0.6

Volatile fraction by weight: 65 - 70 %

Boiling point/boiling range: > 100 °C (212.0 °F)

Water solubility: complete

pH: 10.8

Flash point: does not flash

10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: Acids, Strong oxidizing agents. Contact with strong acids liberates sulphur dioxide.

Hazardous decomposition products: Carbon oxides, Sulphur oxides, Hydrogen bromide

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

General advice:

Contains: Hydroquinone. 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

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 6/11

(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 attracts the risk phrase R68 "Possible risk of irreversible effects" at concentrations above 1%, and a Category 3 carcinogen attracts the risk phrase R40 "Limited evidence of a carcinogenic effect" 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 or breast-feeding women to ensure appropriate controls are in place to control the risk.

Contains: sodium bromide. Ingestion of bromide salts can cause nausea, vomiting, headache, irritability, delirium, memory loss, decreased appetite, joint pain, hallucinations, stupor, coma, and acne like rash on face, legs, and trunk.

Inhalation: Expected to be a low hazard for recommended handling. In contact with strong acids or if heated, sulphites may liberate sulphur dioxide gas. Sulphur dioxide gas is irritating to the respiratory tract. Some asthmatics or hypersensitive individuals may experience difficult breathing.

Eyes: Irritating to eyes.

Skin: May cause sensitization by skin contact.

Ingestion: Expected to be a low ingestion hazard. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Data for potassium sulphite (CAS 10117-38-1):

Acute Toxicity Data:

Oral LD50 (rat): > 3,200 mg/kg

- Dermal LD50 (guinea pig): > 20,000 mg/kg
- Skin irritation: slight to moderate

Data for Hydroquinone (CAS 123-31-9):

Acute Toxicity Data:

Oral LD50 (rat): 400 mg/kg

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 7/11

- Dermal LD50 (guinea pig): > 1,000 mg/kg
- Dermal absorption rate: 1.1 micrograms (s) / cm² / hour
- Skin irritation: slight
- Skin Sensitization (guinea pig): positive
- Eye irritation: moderate

Mutagenicity/Genotoxicity Data:

Salmonella typhimurium assay (Ames test): negative (in presence and absence of activation)

- Chromosomal aberration assay: negative (in absence of activation)
- Chromosomal aberration assay: positive (in presence of activation)
- Sister chromatid exchange (SCE) assay: positive (in presence and absence of activation)

Definitions for the following section(s): LOEL =lowest-observed-effect level, LOAEL = lowest-observed-adverse-effect, NOAEL = no observed-adverse-effect level, NOEL =no-observed-effect level.

Repeated dose toxicity:

- Dermal (17-day, rat): NOEL; 3800 mg/kg/day
- Dermal (17-day): LOEL (Lowest observable effect level); 4800 mg/kg/day

Developmental Toxicity Data:

Oral (female rabbit): NOEL for developmental toxicity; 25mg/kg/day

Data for Sodium carbonate (CAS 497-19-8) (SODA ASH DNS):

Acute Toxicity Data:

Oral LD50 (rat): 1,600 - 3,200 mg/kg

- Skin irritation: slight
- Eye irritation: mild

Data for sodium bromide (CAS 7647-15-6):

Acute Toxicity Data:

Oral LD50 (rat): 3,400 mg/kg

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 8/11

- Dermal LD50 (rabbit): > 2,000 mg/kg
- Skin irritation: none
- Skin Sensitization: none
- Eye irritation: slight

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Toxicity to fish (LC50):	1 - 10 mg/l
Toxicity to daphnia (EC50):	< 1 mg/l
Toxicity to algae (IC50):	10 - 100 mg/l
Toxicity to other organisms (EC50):	> 100 mg/l

Persistence and degradability: Readily biodegradable.

Chemical Oxygen Demand (COD): ca. 224 g/l

Biochemical Oxygen Demand (BOD): ca. 135 g/l

13. Disposal considerations

This information is provided to assist users in the correct disposal of working solutions prepared and used to Kodak specifications.

Working solution: Waste material is currently classified as hazardous under Council Directive 91/689/EEC. The European Waste Catalogue Code is 09 01 01 Water based developer and activator. Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 9/11

Product containers: If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non hazardous waste. Whenever possible, minimize waste by using the rinsing water to make up the working solution. The European Waste Catalogue Code is 15 01 02 plastic packaging.

Waste product packaging contaminated by residues of hazardous contents should be consigned for disposal as hazardous waste. In this case, the European Waste Catalogue Code is 15 01 10 packaging containing residues of or contaminated by dangerous substances.

14. Transport information

Not regulated for all modes of transportation.

For more transportation information, go to: www.kodak.com/go/ship.

15. Regulatory information

Notification status

Regulatory List	Notification status
TSCA	Not all listed
DSL	Not all listed
NDSL	None listed
EINECS	Not all listed
ELINCS	None listed
NLP	None listed
AICS	Not all listed
IECS	Not all listed
ENCS	Not all listed
ECI	Not all listed

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 10/11

NZIoC Not all listed

PICCS Not all listed

"Not all listed" indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Labelling:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

Contains: Hydroquinone 7.74 %

pH: 9 - 12



Symbol/Indication of Danger: Xn: Harmful
N: Dangerous for the environment

Risk Phrases: R40: Limited evidence of a carcinogenic effect.
R68: Possible risk of irreversible effects.
R36: Irritating to eyes.
R43: May cause sensitization by skin contact.
R50: Very toxic to aquatic organisms.

Safety Phrases: S24: Avoid contact with skin.
S36/37: Wear suitable protective clothing and gloves.
S57: Use appropriate container to avoid environmental contamination.

Safety Data Sheet

Approval/Revision date: 08.10.2009

Print Date: 22.04.2010

Z17000000313/Version: 1.3

Page: 11/11

16. Other information

The following is an explanation of the meaning of the Symbol letters and Risk Phrases for the pure substance(s) referred to in Section 2 of this Safety Data Sheet.

Xi: Irritant

Xn: Harmful

N: Dangerous for the environment

R22: Harmful if swallowed.

R36: Irritating to eyes.

R40: Limited evidence of a carcinogenic effect.

R41: Risk of serious damage to eyes.

R43: May cause sensitization by skin contact.

R50: Very toxic to aquatic organisms.

R68: Possible risk of irreversible effects.

Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.
