

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** KODAK Rapid Fixer

### Other means of identification

**Product code** 1973247

**SDS No.** PCD 4896

### Recommended use of the chemical and restrictions on use

**Recommended use** Photographic processing chemical. (fixer). For industrial use only.

**Restrictions on use** Not available.

### Details of manufacturer or importer

**Supplier** Kodak Alaris Australia Pty Limited

**Address** Ground Floor, 2 Domville Avenue  
Hawthorn, Victoria 3122  
Australia

**e-mail** EHS-Questions@Kodakalaris.com

**Emergency telephone number** (02) 90372994

## 2. Hazard(s) identification

### Classification of the hazardous chemical

**Physical hazards** Not classified.

**Health hazards** Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 2A  
Reproductive toxicity Category 1B

**Environmental hazards** Not classified.

### Label elements, including precautionary statements

#### Hazard symbol(s)



Health hazard

Exclamation mark

**Signal word** Danger

**Hazard Statement(s)** Causes skin irritation. Causes serious eye irritation. May damage fertility or the unborn child.

#### Precautionary Statement(s)

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves. Use personal protective equipment as required.

**Response** IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

**Storage** Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards which do not result in classification** Dried product residue can act as a reducing agent.

**Supplemental information** None.

### 3. Composition/information on ingredients

#### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Ammonium thiosulphate	7783-18-8	40 - 45
Acetic acid	64-19-7	1 - 5
Ammonium sulphite	10196-04-0	1 - 5
Boric acid	10043-35-3	1 - 5

Other components below reportable levels

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Personal protection for first-aid responders</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
<b>Symptoms caused by exposure</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
<b>Medical attention and special treatment</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for fire fighters** Wear self-contained breathing apparatus and protective clothing.

**Fire fighting equipment/instructions** Move containers from fire area if you can do so without risk.

**Hazchem Code** None.

**General fire hazards** No unusual fire or explosion hazards noted.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.
<b>For emergency responders</b>	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls and personal protection

### Control parameters

Follow standard monitoring procedures.

### Occupational exposure limits

#### Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
Acetic acid (CAS 64-19-7)	STEL	37 mg/m <sup>3</sup>
		15 ppm
	TWA	25 mg/m <sup>3</sup>
		10 ppm

#### Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value
Acetic acid (CAS 64-19-7)	STEL	37 mg/m <sup>3</sup>
		15 ppm
	TWA	25 mg/m <sup>3</sup>
		10 ppm

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### Individual protection measures, for example personal protective equipment (PPE)

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

##### Hand protection

Wear protective gloves.

##### Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

#### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### Hygiene measures

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Liquid.

#### Form

Liquid.

#### Colour

Light yellow.

### Odour

slight sulphur, slight acetic acid

<b>Odour threshold</b>	Not available.
<b>pH</b>	5
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	> 100 °C (> 212 °F)
<b>Flash point</b>	does not flash
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.

#### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit – upper (%)</b>	Not available.

<b>Vapour pressure</b>	24 hPa
<b>Vapour density</b>	0.6
<b>Relative density</b>	1.32

#### Solubility(ies)

**Solubility (water)** Complete

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

#### Other physical and chemical parameters

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Contact with incompatible materials.

**Incompatible materials** Acids. Strong bases. Sodium hypochlorite (bleach). Halogenated materials. Strong oxidising agents. Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas). Contact with strong acids may liberate sulphur dioxide. Contact with base liberates flammable material. Contact with base liberates ammonia.

**Hazardous decomposition products** Ammonia. Chloramine. Nitrogen oxides (NOx). Sulphur oxides.

## 11. Toxicological information

### Information on possible routes of exposure

**Inhalation** Prolonged inhalation may be harmful. Some asthmatics or hypersensitive individuals may experience difficult breathing after inhaling sulfite salts.

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye irritation.

**Ingestion** May be harmful if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

**Symptoms related to exposure** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Components	Species	Test results
Acetic acid (CAS 64-19-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1060 mg/kg
<b>Inhalation</b>		
LC50	Rat	11.4 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	3320 mg/kg
Boric acid (CAS 10043-35-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 0.002 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	> 1600 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitisation</b>		
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.	
<b>Skin sensitisation</b>	This product is not expected to cause skin sensitisation.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>		
<b>ACGIH Carcinogens</b>		
Boric acid (CAS 10043-35-3)	A4 Not classifiable as a human carcinogen.	
<b>Reproductive toxicity</b>	May damage fertility or the unborn child.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful.	

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test results
Boric acid (CAS 10043-35-3)		
<b>Aquatic</b>		
Fish	LC50	Razorback sucker ( <i>Xyrauchen texanus</i> ) > 100 mg/l, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.	
<b>Bioaccumulative potential</b>		
<b>Partition coefficient n-octanol / water (log Kow)</b>		
Acetic acid		-0.17
<b>Mobility in soil</b>	No data available for this product.	
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

### 13. Disposal considerations

<b>Disposal methods</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Residual waste</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

<b>ADG</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not established.

### 15. Regulatory information

<b>Safety, health and environmental regulations</b>	
<b>National regulations</b>	This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).
<b>Australia Medicines &amp; Poisons Appendix E</b>	
ACETIC ACID (CAS 64-19-7)	
Boric acid (CAS 10043-35-3)	
<b>Australia Medicines &amp; Poisons Appendix F</b>	
ACETIC ACID (CAS 64-19-7)	
<b>Australia Medicines &amp; Poisons Schedule 2</b>	
ACETIC ACID (EXCLUDING ITS SALTS AND DERIVATIVES) (CH <sub>3</sub> COOH) (CAS 64-19-7)	
<b>Australia Medicines &amp; Poisons Schedule 5</b>	
ACETIC ACID (EXCLUDING ITS SALTS AND DERIVATIVES) (CH <sub>3</sub> COOH) (CAS 64-19-7)	
BORIC ACID (EXCLUDING ITS SALTS) AND BORAX (CAS 10043-35-3)	
<b>Australia Medicines &amp; Poisons Schedule 6</b>	
ACETIC ACID (EXCLUDING ITS SALTS AND DERIVATIVES) (CH <sub>3</sub> COOH) (CAS 64-19-7)	
<b>Australia National Pollutant Inventory (NPI): Threshold quantity</b>	
Acetic acid (CAS 64-19-7)	10 TONNES/YR Threshold Category: 1
Boric acid (CAS 10043-35-3)	10 TONNES/YR Threshold Category: 1
<b>High Volume Industrial Chemicals (HVIC)</b>	
Acetic acid (CAS 64-19-7)	1000 - 9999 TONNES See the regulation for additional information.
Boric acid (CAS 10043-35-3)	1000 - 9999 TONNES See the regulation for additional information.
<b>Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)</b>	
Not listed.	
<b>National Pollutant Inventory (NPI) substance reporting list</b>	
Not listed.	
<b>Prohibited Carcinogenic Substances</b>	
Not regulated.	
<b>Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)</b>	
Not listed.	
<b>Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)</b>	
Not listed.	
<b>Restricted Carcinogenic Substances</b>	
Not regulated.	

## International regulations

### Stockholm Convention

Not applicable.

### Rotterdam Convention

Not applicable.

### Kyoto protocol

Not applicable.

### Montreal Protocol

Not applicable.

### Basel Convention

Not applicable.

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

<b>Issue date</b>	01-April-2016
<b>Revision date</b>	14-March-2018
<b>Disclaimer</b>	Kodak Alaris cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
<b>Revision information</b>	This document has undergone significant changes and should be reviewed in its entirety.