

SAFETY DATA SHEET

according to NOHSC:2011(2003)

SDS #: 4980512FIX

KODAK Rapid Access Dental Twin Pack, Fixer

Issuing date no data available

Revision Date 2012-08-16

Version 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product identifier

Product code 4980512FIX

Product name KODAK Rapid Access Dental Twin Pack, Fixer

Pure substance/mixture Mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: photographic chemical.

Uses advised against No information available

1.3 Details of the supplier of the safety data sheet

Supplier Carestream Health Australia Pty Ltd., 27 Church Street, Richmond, Victoria, 3121

For further information, please contact:

E-mail address For environment, health and safety information, email:
WW-EHS@carestreamhealth.com

1.4 Emergency telephone number

+(61)-290372994

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

For the full text of the R-phrases mentioned in this Section, see Section 16

The substance/preparation is classified as dangerous in accordance with Directive(s) 67/548/EEC with amendments and/or 1999/45/EC with amendments

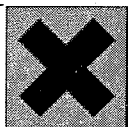
Symbol(s)

Xn - Harmful

R-code(s)

Xn;R20/21/22 - R32 - R52-53

2.2 Label Elements



Xn - Harmful

Contains Ammonium thiocyanate

R-phrase(s)

R32 - Contact with acids liberates very toxic gas

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-phrase(s)

S36 - Wear suitable protective clothing

S37 - Wear suitable gloves

S61 - Avoid release to the environment. Refer to special instructions/ Safety data sheets

2.3 OTHER INFORMATION**General Hazards**

Prolonged exposure may cause chronic effects

May cause adverse thyroid effects

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Hazardous components

Chemical Name	EC-No	CAS-No	Weight percent	Classification (67/548)
Ammonium thiocyanate	217-175-6	1762-95-4	25 - 30	Xn; R20/21/22 R32 R52-53
Ammonium thiosulfate	231-982-0	7783-18-8	10 - 15	-
Sodium bisulfite	231-548-0	7631-90-5	0.1 - 1	Xn; R22 R31
Ammonium bisulfite	233-469-7	10192-30-0	0.1 - 1	-
Ammonium acetate	211-162-9	631-61-8	0.1 - 1	Xn; R22

Non-hazardous ingredients

Chemical Name	EC-No	CAS-No	Weight percent	Classification (67/548)
Water	231-791-2	7732-18-5	60 - 65	-

For the full text of the R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES**4.1 Description of first aid measures****General advice**

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. Show this safety data sheet to the doctor in attendance. Do not breathe dust/fume/gas/mist/vapors/spray. If hydrogen cyanide gas is liberated due to contact with a strong oxidizer or acid, it may cause dizziness, headache, rapid respiration, rapid pulse, unconsciousness, convulsions and death.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention immediately if symptoms occur.

Skin contact

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Get medical attention immediately if symptoms occur.

Ingestion

If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Protection of first-aiders Use personal protective equipment.

4.2 Most important symptoms and effects, both acute and delayed

Main symptoms Hives. Itching. Rashes. Difficulty breathing. Coughing and/ or wheezing.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Contact with a strong oxidizer or acid may liberate hydrogen cyanide gas. In the event that hydrogen cyanide gas is released, the local emergency ambulance/resuscitation service or physician should be informed that the patient may have been exposed to hydrogen cyanide gas.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media.

Suitable extinguishing media

Dry chemical, CO₂, alcohol-resistant foam or water spray.

Extinguishing media which shall not be used for safety reasons

No information available.

5.2 Special hazards arising from the substance or mixture.

Special hazard

Thermal decomposition can lead to release of toxic and corrosive gases/vapours. Dried product residue can act as a reducing agent. Reacts violently with oxidizing materials. May cause spontaneous heating and ignition when absorbed on combustible, porous material (e.g. rags, paper, sawdust, cotton, clothing).

5.3 Advice for fire-fighters.

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Hazchem Code

No information available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. For personal protection see section 8.

See Section 12 for additional information.

6.2 Environmental precautions.

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

Dam up. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Prevent the formation of vapours, mist and aerosols. Do not eat, drink or smoke when using this product. Keep from contact with oxidizing materials, highly oxygenated or halogenated solvents, organic compounds containing reducible functional groups. Drying of this product on clothing or combustible materials may cause fire.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Store in original container. Do not allow evaporation to dryness.

7.3 Specific end uses

Specific use(s) photographic chemical

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits Components with workplace control parameters

Chemical Name	New Zealand WEL	Australia	ACGIH TLV	European Union
Sodium bisulfite	TWA 5 mg/m ³	TWA 5 mg/m ³	TWA: 5 mg/m ³	

Biological standards

8.2 Exposure controls

Engineering measures Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

Personal protective equipment

Eye protection Safety glasses with side-shields.

Hand protection Impervious gloves.

Skin and body protection Wear suitable protective clothing.

Respiratory protection None under normal use conditions. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Wear a positive-pressure supplied-air respirator with full facepiece. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Other Protective Equipment Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid	Odour	odourless
Appearance	liquid	Odour Threshold	No information available
Colour	clear colourless		
Property	Values	Note - Method	
pH	5.4	No information available	
Melting point/range:		No information available	
Freezing point:		No information available	
Boiling point/boiling range	> 100 °C / 212 °F	No information available	
Flash Point		Does not flash	

Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limits in Air	No information available

Vapour pressure	22 mbar @ 20 °C	No information available
Vapour density	0.4	No information available
Relative density	1.12	No information available
Water solubility	completely soluble	No information available
Solubility in other solvents		No information available
Partition coefficient: n-octanol/water		No information available
Auto-ignition temperature		No information available
Decomposition temperature		No information available
Viscosity:		No information available
Explosive properties	No information available	
Oxidizing properties	No information available	

9.2 OTHER INFORMATION

Softening point	No information available
Molecular Weight	No information available
VOC Content	No information available
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Contact with a strong oxidizer or acid may liberate hydrogen cyanide gas. Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas).

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Acids. Sodium hypochlorite. Strong bases. Strong oxidizing agents. Halogenated compounds. Contact with a strong oxidizer or acid may liberate hydrogen cyanide gas. Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas).

10.6 Hazardous decomposition products

Ammonia. Chloramine. Sulphur oxides. Nitrogen oxides (NOx). Cyanides. Carbon oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Product Information

Inhalation Harmful by inhalation. Irritating to respiratory system Contact with a strong oxidizer or acid may liberate hydrogen cyanide gas. If hydrogen cyanide gas is liberated due to contact with a strong oxidizer or acid, it may cause dizziness, headache, rapid respiration, rapid pulse, unconsciousness, convulsions and death. Contact with strong acids liberates sulphur dioxide Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Eye contact Irritating to eyes

Skin contact Harmful in contact with skin. Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion Harmful if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium thiocyanate	500 mg/kg (Rat)		
Ammonium thiosulfate	> 2000 mg/kg (Rat)		
Sodium bisulfite	1420 mg/kg (Rat)		

Chemical Name	Other applicable information
Ammonium thiocyanate	Moderate eye irritation Moderate skin irritation Overexposure to thiocyanates has been shown to cause thyroid enlargement, decrease in metabolic rate, and symptoms of hypothyroidism in humans and animals.
Ammonium thiosulfate	No skin irritation No eye irritation
Sodium bisulfite	No skin irritation No eye irritation

Chronic toxicity

Carcinogenicity Contains no ingredient listed as a carcinogen.

Subchronic toxicity

No information available

Sensitisation

May cause sensitisation of susceptible persons.

Target Organ Effects

Eyes. Skin. Respiratory system. Thyroid. Central nervous system.

Other adverse effects

May cause adverse thyroid effects. Overexposure to thiocyanates has been shown to cause thyroid enlargement, decrease in metabolic rate, and symptoms of hypothyroidism in humans and animals.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity effects

This product contains an ingredient that is classified, according to European regulations, as "harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment".

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Sodium bisulfite		LC50= 240 mg/L Gambusia affinis 96 h	EC50 = 119 mg/L 48 h (Daphnia magna)

12.2 Persistence and degradability

Expected to be readily biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues / unused products

Dispose of in accordance with local regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may have a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

ADG

Not classified as a dangerous goods.

Component

Hazchem Code

Ammonium thiocyanate
1762-95-4 (25 - 30)

2X

Sodium bisulfite
7631-90-5 (0.1 - 1)

2X

Ammonium bisulfite
10192-30-0 (0.1 - 1)

2X

ICAO/IATA

not regulated

IMDG/IMO

not regulated

For transportation information, go to: <http://ship.carestreamhealth.com>.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

EINECS/ELINCS	Complies
TSCA	Complies
DSL/NDSL	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
NZIoC	Complies

Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

National regulatory information

Australia

Chemical Name	Australia - Standard for the Uniform Scheduling of Drugs and Poisons - Schedule 2
Ammonium thiocyanate - 1762-95-4	13 (when included in Schedule 7) A Schedule 5
Chemical Name	Australia - National Pollutant Inventory (NPI) Substance List
Ammonium thiocyanate - 1762-95-4	10

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R32 - Contact with acids liberates very toxic gas

R31 - Contact with acids liberates toxic gas

R22 - Harmful if swallowed

R35 - Causes severe burns

R10 - Flammable

Risk Combination Phrases

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revision Date 2012-08-16

Revision Note not applicable.

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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End of Safety Data Sheet
