Material Safety Data Sheet

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

Product name: KODAK PROFESSIONAL First Developer Replenisher, Process E-6

Product code: 8313611

Supplier: KODAK AUSTRALASIA Pty. Ltd., Level 2, 436 Johnston Street, Abbotsford, Victoria, 3067

For Chemical Emergency Information, in Australia call 1800 033111 (24 hour service Australia-wide); in New Zealand call 0800 734 607 (24 hour service); in Asia call +86 21 63500836

For Other Information, call 61 3 8417 8000.

Synonyms: PCD 6214

Product Use: photographic processing chemical (developer/activator), For industrial use only.

2. Hazards identification

STATEMENT OF HAZARDOUS NATURE: Hazardous according to criteria of Australian Safety and Compensation Council

Irritant. May cause sensitization by skin contact.

Contains no scheduled poisons

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
7 -13	Potassium sulphite (10117-38-1)
5 -10	Potassium hydroquinone monosulphonate (21799-87-1)
5 -10	Potassium carbonate (584-08-7)
1 -5	Sodium carbonate (497-19-8)
0.1 - <1	4-hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidinone (13047-13-7)
0.1 - <1	Sodium bromide (7647-15-6)

4. First aid measures

Inhalation: If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. If easy to do, remove contact lens, if worn.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

Ingestion: If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.

5. Fire-fighting measures

Hazchem Code: Not specified

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: None (noncombustible), (see also Hazardous Decomposition Products sections.)

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Contaminated absorbent should be disposed of in accordance with local regulations. Clean surface thoroughly to remove residual contamination.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour. 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: Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls/personal protection

Occupational exposure controls: Not established

Ventilation: Good general ventilation should be used. Ventilation should be sufficient so that applicable occupational exposure limits are not exceeded. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances.

Respiratory protection: None should be needed. If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: full-face cartridge respirator with acid gas cartridge and N95 filter.

If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

Eye protection: Wear safety glasses with side shields (or goggles).

Hand protection: Wear impervious gloves and protective clothing appropriate for the risk of exposure.

9. Physical and chemical properties

Physical form: liquid

Colour: light brown

Odour: odourless

Specific gravity: 1.27

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: 9.8

Flash point: does not flash

Flammability Limits: Not specified

10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: Acids Contact with strong acids liberates sulphur dioxide.

Hazardous decomposition products: Sulphur oxides.

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

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: No specific hazard known. May cause transient irritation.

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 Potassium hydroquinone monosulphonate (CAS 21799-87-1):

Acute Toxicity Data:
Oral LD50 (male rat): > 3,200 mg/kg (10% in water)
- Dermal LD50 (guinea pig): > 1,000 mg/kg
- Skin irritation: slight to moderate (repeated skin application)
- Skin irritation: slight
- Skin Sensitization (guinea pig): negative
- Eye irritation: moderate

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:
- Feeding study (12-day, male rat): NOEL; 846 mg/kg/day (highest dose tested, target organ effects: none)
- Feeding study (90 days, male rat): NOEL; 627 mg/kg/day (target organ effects: none)
- Feeding study (90 days, female rat): NOEL; 713 mg/kg/day (target organ effects: none)

Data for Potassium carbonate (CAS 584-08-7):

Acute Toxicity Data:
Oral LD50 (rat): 1,870 mg/kg

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

Acute Toxicity Data:
Oral LD50 (rat): 1,600 - 3,200 mg/kg
- Skin irritation: slight
- Eye irritation: mild

Data for Sodium bicarbonate (CAS 144-55-8):

Acute Toxicity Data:
Oral LD50 (rat): 4,220 mg/kg
- Inhalation LC50 (rat): >900 MG/M3 /

12. Ecological information

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

Potential Toxicity:

Toxicity to fish (LC50):	> 100 mg/l
Toxicity to daphnia (EC50):	10 - 100 mg/l
Toxicity to algae (IC50):	> 100 mg/l no data available
Toxicity to other organisms (EC50):	> 100 mg/l (sludge)

Persistence and degradability: Readily biodegradable.

Chemical Oxygen Demand (COD): ca. 130 g/l

Biochemical Oxygen Demand (BOD): ca. 72 g/l

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

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	All listed
DSL	All listed
NDSL	None listed
EINECS	All listed
ELINCS	None listed
NLP	None listed
AICS	All listed
IECS	All listed
ENCS	All listed
ECI	All listed
NZIoC	All listed
PICCS	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.

Poisons Schedule: Not specified

Australian Safety and Compensation Council: none

Other regulations

Australia National Model Regulations for the Control of Scheduled Carcinogenic Substances	No components listed

16. Other information

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. The actual label information will depend upon the intended use of the product. Australian Safety and Compensation Council labeling appears for commercial/industrial use.

Australian Safety and Compensation Council Labeling:

Contains: Potassium hydroquinone monosulphonate 5 - 10%

pH: 9 - 12

Symbol/Indication of Danger:	Xi: Irritant
Risk Phrases:	R43: May cause sensitization by skin contact.
Safety Phrases:	S24: Avoid contact with skin. S37: Wear suitable gloves.

National Health and Medical Research Council Standard for the Uniform Scheduling of Drugs and Poisons Labeling:

CONTAINS NO SCHEDULED POISONS
First aid: No first aid instructions are recommended for labelling purposes.

The information contained herein is furnished without warranty of any kind. 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.