Material Safety Data Sheet

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

Product name: KODAK FLEXICOLOR SM Tank Developer / C-41SM, Working Solution

Product code: 1756337 - Working Solution

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: None.

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

Dangerous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Contains no scheduled poisons

3. Composition/information on ingredients

Weight percent	Components (CAS-No.)
1 - 5	Potassium carbonate (584-08-7)
0.1 - <1	4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate (25646-77-9)
0.1 - <1	Potassium sulphite (10117-38-1)
0.1 - <1	Bis(hydroxylammonium) sulphate (10039-54-0)
0.1 - <1	Sodium sulphite (7757-83-7)
0.1 - <1	Sodium bromide (7647-15-6)

4. First aid measures

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

Eyes: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lens, if worn. Get medical attention if symptoms occur.

Skin: 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, DO NOT induce vomiting. 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: None (noncombustible)

Hazardous Combustion Products: None (noncombustible)

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 prolonged or repeated breathing of 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.

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. A respirator should be worn if hazardous decomposition products are likely to be or have been released. Respirator type: acid gas 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: tan

Odour: odourless

Specific gravity: 1.037

Vapour pressure: 24 mbar (18.0 mm Hg)

Vapour density: 0.6

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

Water solubility: complete

pH: 10.0

Flash point: does not flash

Flammability Limits: Not specified

10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: None with common materials and contaminants with which the material may reasonably come into contact.

Hazardous decomposition products: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

General advice:

Contains: 4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate. May cause kidney damage based on animal data.

Contains: Bis(hydroxylammonium) sulphate. Can cause blood disorders. Can cause cyanosis. There is limited evidence of carcinogenicity in lifetime oral studies in rats.

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. Some asthmatics or hypersensitive individuals may experience difficulty breathing.

Eyes: No specific hazard known. May cause transient irritation.

Skin: Expected to be a low hazard for recommended handling.

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 carbonate (CAS 584-08-7):

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

Data for 4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate (CAS 25646-77-9):

Acute Toxicity Data:
Oral LD50 (male rat): 25 - 50 mg/kg (target organ effects: kidney)

- Oral LD50 (female rat): 30 mg/kg (target organ effects: kidney)
- Inhalation LC50 (rat): > 0.164 mg/l / 6 hr
- Dermal absorption rate (rat): 93.7 microgram(s)/cm2/hour (in vitro)
- Dermal LD50 (guinea pig): > 2,000 mg/kg
- Skin irritation: moderate
- Skin Sensitization (human): positive
- Skin Sensitization (guinea pig): moderate to strong
- Eye irritation (unwashed eyes): 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:

- Oral (4 weeks, female rat): NOEL; 1 mg/kg/day
- Oral (4 weeks, female rat): Lowest observable effect level; 10 mg/kg/day (target organ effects: kidney)
- Oral (4 weeks, male rat): NOEL; 10 mg/kg/day
- Oral (4 weeks, male rat): Lowest observable effect level; > 10 mg/kg/day (target organ effects: kidney)
- Oral (90 days, rat): NOEL; 1 mg/kg/day
- Oral (90 days, rat): Lowest observable effect level; 5 mg/kg/day (target organ effects: kidney)

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

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

- Oral LD50 (mouse): > 3,200 mg/kg
- Dermal LD50 (guinea pig): > 20,000 mg/kg
- Skin irritation: slight to moderate

Data for Bis(hydroxylammonium) sulphate (CAS 10039-54-0):

Acute Toxicity Data:
Oral LD50 (male rat): 100 - 200 mg/kg

- Dermal study (24 hours): 10 mg/kg (target organ effects: red blood cell)
- Dermal LD50 (guinea pig): > 1,000 mg/kg
- Skin irritation: strong
- Skin Sensitization (guinea pig): strong
- Eye irritation: slight

Data for Sodium sulphite (CAS 7757-83-7):

Acute Toxicity Data:
Oral LD50 (rat): > 1,600 mg/kg
- Inhalation LC50 (rat): > 22 mg/l / 1 hr
- Inhalation LC50 (rat): > 5.5 mg/l / 4 hr
- Skin irritation: none
- Eye irritation: slight; washing palliative

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

Acute Toxicity Data:
Oral LD50 (rat): 3,400 mg/kg
- 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):	> 100 mg/l
Toxicity to daphnia (EC50):	10 - 100 mg/l

Persistence and degradability: Readily biodegradable.

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:

Symbol/Indication of Danger:	N: Dangerous for the environment
Risk Phrases:	R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases:	S57: Use appropriate container to avoid environmental contamination.

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.

R-1, S-2, F-0, C-0