# Material Safety Data Sheet



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

**Product name:** KODAK XTOL Developer, Part A

**Product code:** 8751752 - Part A

**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 6311

**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

Harmful 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.) |
|---|---|
| 90 - 95 | Sodium sulphite (7757-83-7) |
| 5 - 10 | Sodium metaborate, tetrahydrate (10555-76-7) |
| 1 - 5 | Pentetic acid, pentasodium salt (140-01-2) |
| 0.1 -1 | 4-hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidinone (13047-13-7) |

## 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. If easy to do, remove contact lens, if worn. Get medical attention.

**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. Destroy or thoroughly clean contaminated shoes. Wash contaminated clothing before re-use.

**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:** Fire or excessive heat may produce hazardous decomposition products., (see also Hazardous Decomposition Products sections.)

**Unusual Fire and Explosion Hazards:** None.

## 6. Accidental release measures

Dispose of in accordance with local regulations. Shovel into suitable container for disposal. Clean surface thoroughly to remove residual contamination.

## 7. Handling and storage

**Personal precautions:** Avoid breathing dust 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:** Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

## 8. Exposure controls/personal protection

**Occupational exposure controls**

| Chemical Name | Regulatory List | Value Type | Value |
|---|---|---|---|
| Sulphur dioxide | Exposure Standards | time weighted average | 2 ppm 5.2 mg/m3 |
| | | Short term exposure limit | 5 ppm 13 mg/m3 |
| Sulphur dioxide | WEL | time weighted average | 2 ppm 5.2 mg/m3 |
| | | Short term exposure limit | 5 ppm 13 mg/m3 |

**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: N95 Particulate Filter. 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:** solid (powder)

**Colour:** off-white

**Odour:** odourless

**Specific gravity:** no data available

**Vapour pressure:** negligible

**Vapour density:** no data available

**Volatile fraction by weight:** negligible

**Melting point/range:** no data available

**Water solubility:** complete

**pH:** not applicable

**Flash point:** not applicable

**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

**General advice:**

Contains: Sodium metaborate, tetrahydrate. Based on repeated-dose ingestion studies in animals, may cause adverse reproductive and developmental effects. However, the doses administered were many times those to which humans would normally be exposed.

Contains: 4-hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidinone. May cause adverse reproductive effects such as infertility based on animal data. Based on repeated-dose ingestion studies in animals, this chemical may cause blood, testicular, and adverse reproductive effects.

**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:** 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 Sodium sulphite (CAS 7757-83-7):

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

### Data for Pentetic acid, pentasodium salt (CAS 140-01-2):

### Acute Toxicity Data:
Oral LD50 (male rat): 3,200 mg/kg
- Oral LD50 (female rat): 2,263 mg/kg
- Skin Sensitization: none

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 (11 days, male rat): NOEL; 100 mg/kg/day

### Data for 4-hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidinone (CAS 13047-13-7):

### Acute Toxicity Data:
Oral LD50 (rat): 566 mg/kg
- Dermal LD50: > 1,000 mg/kg
- Skin irritation: slight
- Skin irritation: slight exacerbation (repeated skin application)
- Skin Sensitization: slight
- Eye irritation (unwashed eyes): strong
- Eye irritation (washed eyes): slight to 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 (12-day, rat): NOEL; 88 mg/kg/day
- Oral (12-day, rat): Lowest observable effect level; 440 mg/kg/day (target organ effects: blood, target organ effects: testes)
- Oral (28-day, rat): NOEL; 10 mg/kg/day
- Oral (28-day, rat): Lowest observable effect level; 40 mg/kg/day (target organ effects: blood, target organ effects: testes)

## 12. Ecological information

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

**Potential Toxicity:**

| | |
|---|---|
| Toxicity to fish (LC50): | 10 - 100 mg/l |
| Toxicity to daphnia (EC50): | 10 - 100 mg/l |

**Persistence and degradability:** Not 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 | Not all listed |
| DSL | Not all listed |
| NDSL | None listed |
| EINECS | Not all listed |
| ELINCS | None listed |
| NLP | None listed |
| AICS | All listed |
| IECS | All listed |
| ENCS | Not all listed |
| ECI | Not 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:** Pentetic acid, pentasodium salt 1 - 5%, 4-hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidinone 0.1 - 1%

| | |
|---|---|
| **Risk Phrases:** | R52/53: Harmful 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.