

# MATERIAL SAFETY DATA SHEET

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

**Product name:** KODAK Sepia II Warm Toner, PART A (BLEACH BATH)

**Product code:** 8703613 - PART A (BLEACH BATH)

**Manufacturer:** EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York, 14650

**Supplier:** EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York, 14650

For Emergency Health, Safety & Environmental Information, call (585) 722-5151 (USA)

For other information or to request an MSDS, call (800) 242-2424.

**Synonyms:** PCD 6346

**Product Use:** Professional photographic processing chemical

## 2. Hazards identification

**CONTAINS:** Potassium ferricyanide (13746-66-2)

### WARNING!

**CONTACT WITH ACID LIBERATES FLAMMABLE MATERIAL**

**CONTACT WITH ACID LIBERATES TOXIC GAS**

**POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES**

**CAN DECOMPOSE AT ELEVATED TEMPERATURES**

**CAUSES EYE IRRITATION**

**HMIS III Hazard Ratings:** Health - 1, Flammability - 1, Physical Hazard - 1

**NFPA Hazard Ratings:** Health - 1, Flammability - 1, Instability - 1

NOTE: HMIS III and NFPA 704 (2001) hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. An asterisk (\*), in the HMIS III health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

## 3. Composition/information on ingredients

| Weight % | Components (CAS-No.)                |
|----------|-------------------------------------|
| 85 - 95  | Potassium ferricyanide (13746-66-2) |
| 5 - 15   | Potassium bromide (7758-02-3)       |

## 4. First aid measures

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

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**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Skin:** Wash off with soap and water. Get medical attention if symptoms occur.

**Ingestion:** Get medical attention if symptoms occur.

## 5. Fire-fighting measures

**Extinguishing Media:** water spray, carbon dioxide (CO<sub>2</sub>), dry chemical.

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

**Hazardous Combustion Products:** Carbon oxides, nitrogen oxides (NO<sub>x</sub>), (see also Hazardous Decomposition Products section).

**Unusual Fire and Explosion Hazards:** Fire or high temperatures may cause decomposition. Dust may form explosive mixture in air.

## 6. Accidental release measures

**Methods for cleaning up:** Shovel into suitable container for disposal. Avoid dust formation. Clean surface thoroughly to remove residual contamination.

## 7. Handling and storage

**Personal precautions:** Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Wash thoroughly after handling.

**Prevention of Fire and Explosion:** Keep away from heat and sources of ignition. Dust may form explosive mixture in air. Minimize dust generation and accumulation. Ensure adequate ventilation. Refer to NFPA 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids." Keep from contact with oxidizing materials.

**Storage:** Keep away from acids. 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 to an acceptable level, an approved respirator must be worn. A full-face positive-pressure

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air-supplied respirator must be worn if hazardous decomposition products are likely to be released or have been released. See Stability and Reactivity Section. 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).

**Skin and body protection:** For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

**Recommended Decontamination Facilities:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

## 9. Physical and Chemical Properties

**Physical form:** solid (crystalline)

**Colour:** orange

**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:** appreciable

**pH:** not applicable

**Flash point:** not applicable

## 10. Stability and reactivity

**Stability:** Stable under normal conditions. Safe handling temperatures are dependent on specific conditions of use and are typically substantially below the onset temperature. Consult your technical safety experts.

**Incompatibility:** Strong oxidizing agents, strong acids. Contact with acid liberates flammable material. Contact with acid liberates toxic gas. Contact with acids liberates hydrogen cyanide.

**Hazardous decomposition products:** nitrogen oxides (NO<sub>x</sub>), hydrogen cyanide (hydrocyanic acid), hydrogen bromide.

**Hazardous Polymerization:** Hazardous polymerization does not occur.

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## 11. Toxicological information

### Effects of Exposure

#### General advice:

Contains: Potassium 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.

**Eyes:** Causes eye irritation. However, immediate flushing of the eyes with water will minimize any irritative effect.

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

**Ingestion:** Expected to be a low ingestion hazard.

### Data for Potassium ferricyanide (CAS 13746-66-2):

#### Acute Toxicity Data:

- Oral LD50 (rat): 2,263 mg/kg
- Dermal LD50: 1,000 mg/kg
- Skin irritation: slight
- Eye irritation (unwashed eyes): moderate
- Eye irritation (washed eyes): slight

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 (13-day, rat): NOEL; 101 mg/kg/day (target organ effects: blood)

### Data for Potassium bromide (CAS 7758-02-3):

#### Acute Toxicity Data:

- Oral LD50 (rat): > 1,600 mg/kg

## 12. Ecological information

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

Potential Toxicity:

Fish LC50: > 100 mg/l

Daphnid EC50: 1 - 10 mg/l

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Waste treatment organisms EC50: > 100 mg/l  
Organics Readily Degradable: Not applicable  
Potential Bioaccumulation: log Pow < 1  
COD (approximate): 290 g/l  
BOD (approximate): 10 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](http://www.kodak.com/go/ship).

## 15. Regulatory information

**U.S. California Prop. 65:** none

**Carcinogenicity Classification (components present at 0.1% or more):**

International Agency for Research on Cancer (IARC): none  
American Conference of Governmental Industrial Hygienists (ACGIH): none  
U.S. National Toxicology Program (NTP): none  
U.S. Occupational Safety and Health Administration (OSHA): none

**Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372:** none

## 16. Other information

**US/Canadian Label Statements:**

**CONTAINS: Potassium ferricyanide (13746-66-2)**

**WARNING!**

**CONTACT WITH ACID LIBERATES FLAMMABLE MATERIAL  
CONTACT WITH ACID LIBERATES TOXIC GAS  
POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES  
CAN DECOMPOSE AT ELEVATED TEMPERATURES  
CAUSES EYE IRRITATION**

Avoid breathing dust.

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Avoid contact with eyes, skin, and clothing.  
Minimize dust generation and accumulation.  
Keep container tightly closed.  
Ensure adequate ventilation.  
Wash thoroughly after handling.

**FIRST AID:** If inhaled, move to fresh air. Get medical attention if symptoms occur. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. Wash off with soap and water. Get medical attention if symptoms occur. Get medical attention if symptoms occur.

Keep out of reach of children.

Do not handle or use until safety precautions in Material Safety Data Sheet (MSDS) have been read and understood.

Since emptied containers retain product residue, follow label warnings even after container is emptied.

**IN CASE OF FIRE:** Use water spray, carbon dioxide (CO<sub>2</sub>), dry chemical.

**IN CASE OF SPILL:** Shovel into suitable container for disposal. Avoid dust formation. Clean surface thoroughly to remove residual contamination.

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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.

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