

# Material Safety Data Sheet

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

**Product name:** KODAK Sepia Toner, Part A (Bleach Bath)

**Product code:** 1691757 - Part A (Bleach Bath)

**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 401

**Product Use:** photographic processing chemical (bleach/bleach fixer), For industrial use only.

## 2. Hazards identification

**CONTAINS:** Potassium bromide (7758-02-3), Potassium ferricyanide (13746-66-2)

### WARNING!

**CONTACT WITH ACID LIBERATES FLAMMABLE MATERIAL**

**CONTACT WITH ACID LIBERATES TOXIC GAS**

**CAN DECOMPOSE AT ELEVATED TEMPERATURES**

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

**HARMFUL IF SWALLOWED**

**HMIS III Hazard Ratings:** Health - 1, Flammability - 1, Reactivity (Stability) - 0

**NFPA Hazard Ratings:** Health - 4, Flammability - 1, Instability - 0

NOTE: HMIS III and NFPA 704 (2007) 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. To adequately address safe handling, ALL information in this MSDS must be considered.

## 3. Composition/information on ingredients

Weight %	Components - (CAS-No.)
50 - 55	Potassium bromide (7758-02-3)
45 - 50	Potassium ferricyanide (13746-66-2)

## 4. First aid measures

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

**Eyes:** Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur.

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

**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

**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

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. Use only with adequate ventilation. Keep container tightly closed. Avoid contact with eyes, skin, and clothing. Do not eat, drink or smoke when using this product. 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. Use only with 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

Chemical Name	Regulatory List	Value Type	Value
Hydrogen cyanide	ACGIH	Ceiling Limit Value: <i>Expressed as CN</i>	4.7 ppm
	ACGIH	Skin designation: <i>Expressed as CN</i> <i>Remarks: Can be absorbed through the skin.</i>	
	OSHA Z1	Permissible exposure limit	10 ppm 11 mg/m <sup>3</sup>
	OSHA Z1	Skin designation: <i>Remarks: Can be absorbed through the skin.</i>	

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**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:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: N95 Particulate Filter. A full-face positive-pressure 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).

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

### 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 acids, Strong oxidizing agents. Contact with acid liberates flammable material. Contact with acids liberates toxic gas. Contact with acids liberates hydrogen cyanide.

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

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

## 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. 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.

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

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

**Ingestion:** Harmful if swallowed. 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.

#### Acute Toxicity Data:

- Oral LD50 (rat): 500 - 5,000 mg/kg
- Skin irritation: slight

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

##### Acute Toxicity Data:

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

#### 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
- Skin Sensitization (guinea pig): negative
- 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.

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## Repeated dose toxicity:

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

## 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):	1 - 10 mg/l
Toxicity to algae (IC50):	no data available
Toxicity to other organisms (EC50):	> 100 mg/l (sludge)

**Chemical Oxygen Demand (COD):** ca. 2 g/l

**Biochemical Oxygen Demand (BOD):** ca. 0.05 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

### Notification status

Regulatory List	Notification status
EINECS	y (positive listing)
TSCA	y (positive listing)
AICS	y (positive listing)
DSL	y (positive listing)
ENCS (JP)	y (positive listing)
KECI (KR)	y (positive listing)
PICCS (PH)	y (positive listing)

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INV (CN) y (positive listing)

A N (Negative listing) 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.

## Other regulations

American Conference of Governmental Industrial Hygienists (ACGIH):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
California Prop. 65:	This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:	Potassium ferricyanide
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323):	Potassium bromide, Potassium ferricyanide
US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000):	No components are subject to the Massachusetts Right to Know Act.
US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5):	Potassium bromide, Potassium ferricyanide

## 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.

### US/Canadian Label Statements:

**CONTAINS: Potassium bromide (7758-02-3), Potassium ferricyanide (13746-66-2)**

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### **WARNING!**

**CONTACT WITH ACID LIBERATES FLAMMABLE MATERIAL**  
**CONTACT WITH ACID LIBERATES TOXIC GAS**  
**CAN DECOMPOSE AT ELEVATED TEMPERATURES**  
**POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES**  
**HARMFUL IF SWALLOWED**

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

**FIRST AID:** If inhaled, remove to fresh air. Get medical attention if symptoms occur. Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur. Wash off with soap and water. Get medical attention if symptoms occur. 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.

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-1, F-1, C-1T

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

**Product name:** KODAK Sepia Toner, Part B (Toning Bath)

**Product code:** 1691757 - Part B (Toning Bath)

**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 11020

**Product Use:** photographic processing chemical, For industrial use only.

## 2. Hazards identification

**CONTAINS:** Disodium sulfide, nonahydrate (1313-84-4)

**DANGER!**

**CONTACT WITH WATER LIBERATES TOXIC GAS**

**CONTACT WITH ACID LIBERATES FLAMMABLE AND POISONOUS GAS**

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

**CAUSES SEVERE SKIN AND EYE BURNS**

**DUST, MIST OR VAPOUR EXTREMELY IRRITATING TO THE EYES AND RESPIRATORY TRACT**

**MAY CAUSE DELAYED LUNG DAMAGE**

**POISON**

**MAY BE FATAL OR HARMFUL IF INHALED OR SWALLOWED**

**HARMFUL IF ABSORBED THROUGH SKIN**

**STENCH**

**NFPA Hazard Ratings:** Health - 3, Flammability - 1, Instability - 0

NOTE: NFPA 704 (2007) hazard indexes involves data review and interpretation that may vary among companies. It is intended only for rapid, general identification of the magnitude of the potential hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

## 3. Composition/information on ingredients

Weight %	Components - (CAS-No.)
100	Disodium sulfide, nonahydrate (1313-84-4)

## 4. First aid measures

**Inhalation:** If inhaled, remove to fresh air. Get medical attention.

**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 immediately.



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**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control centre immediately. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

**Ingestion:** If swallowed, DO NOT induce vomiting. Rinse mouth. Call a physician or poison control centre immediately. Never give anything by mouth to an unconscious person.

## 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:** Sulphur oxides, (see also Hazardous Decomposition Products section).

**Unusual Fire and Explosion Hazards:** Dust may form explosive mixture in air.

## 6. Accidental release measures

Shovel into suitable container for disposal. Avoid dust formation. Clean surface thoroughly to remove residual contamination.

## 7. Handling and storage

**Personal precautions:** Do not breathe dust. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Keep container closed. Wash thoroughly after handling.

**Prevention of Fire and Explosion:** Dust may form explosive mixture in air. Minimize dust generation and accumulation. Use only with adequate ventilation. Keep away from sources of ignition. 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 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
Hydrogen sulphide	ACGIH	time weighted average	10 ppm
	ACGIH	Short term exposure limit	15 ppm
	OSHA Z2	Ceiling Limit Value:	20 ppm
	OSHA Z2	Maximum concentration:	50 ppm

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**Ventilation:** Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels to an acceptable level.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: N95 Particulate Filter. A full-face positive-pressure 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).

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

### 9. Physical and chemical properties

**Physical form:** solid (crystalline)

**Colour:** light yellow

**Odour:** pungent

**Specific gravity:** 1.43

**Vapour pressure (at 20.0 °C (68.0 °F)) :** negligible

**Vapour density:** not applicable

**Volatile fraction by weight:** no data available

**Boiling point/boilingrange:** 174.0 °C (345.2 °F)

**Melting point/range:** 50.0 °C (122.0 °F)

**Water solubility:** appreciable

**pH:** not applicable

**Flash point:** 93.0 °C (199.4 °F) (micro Cleveland open cup)

**Flammability Limits:** Not specified

**Autoignition temperature:** 340.0 °C (644.0 °F)

### 10. Stability and reactivity

**Stability:** Stable.

No exotherm to 500 °C by DTA

**Incompatibility:** Strong acids, Strong oxidizing agents. Contact with acid liberates hydrogen sulphide.

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**Hazardous decomposition products:** Sulphur oxides, hydrogen sulphide.

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

## 11. Toxicological information

### Effects of Exposure

**Inhalation:** May be fatal or harmful if inhaled. Airborne dust/mist/vapor extremely irritating. If hydrogen sulphide gas is liberated due to contact with acid, it may cause headache, nausea, dizziness, confusion, weakness, unconsciousness, convulsions, and death.

**Eyes:** Causes severe eye burns. Airborne dust/mist/vapor extremely irritating.

**Skin:** Harmful if absorbed through skin. Causes severe skin burns.

**Ingestion:** May be fatal or harmful if swallowed. May cause burns of the gastrointestinal tract if swallowed. If free gastric acidity is high, hydrogen sulfide is liberated in the stomach and may cause systemic toxic effects such as vomiting, respiratory depression, tremors, convulsions and death.

## 12. Ecological information

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

### Potential Toxicity:

Toxicity to fish (LC50):	1 - 10 mg/l
Toxicity to daphnia (EC50):	1 - 10 mg/l
Toxicity to algae (IC50):	10 - 100 mg/l

**Persistence and degradability:** Not applicable

**Chemical Oxygen Demand (COD):** 1099 g/l

**Biochemical Oxygen Demand (BOD):** no data available

## 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

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the

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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.

<b>IATA:</b>	UN Number:	UN1849
	Proper shipping name:	Sodium sulphide, hydrated
	Class:	8
	Packaging group:	II
<b>IMDG:</b>	UN Number:	UN1849
	Proper shipping name:	SODIUM SULPHIDE, HYDRATED
	Class:	8
	Packaging group:	II
<b>US DOT:</b>	UN Number:	UN1849
	Proper shipping name:	Sodium sulfide, hydrated
	Class:	8
	Packaging group:	II

For more transportation information, go to: [www.kodak.com/go/ship](http://www.kodak.com/go/ship).

## 15. Regulatory information

### Notification status

Regulatory List	Notification status
EINECS	y (positive listing)
TSCA	y (positive listing)
AICS	y (positive listing)
DSL	y (positive listing)
ENCS (JP)	y (positive listing)
KECI (KR)	y (positive listing)
PICCS (PH)	y (positive listing)
INV (CN)	y (positive listing)

A N (Negative listing) 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.

### Other regulations

American Conference of Governmental Industrial Hygienists (ACGIH):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
U.S. National Toxicology Program (NTP):	No component of this product present at

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	levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
California Prop. 65:	This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:	SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323):	Water, Sodium sulphide
US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000):	Sodium sulphide
US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5):	Water, Sodium sulphide

## 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.

### US/Canadian Label Statements:

**CONTAINS: Disodium sulfide, nonahydrate (1313-84-4)**

**DANGER!**

**CONTACT WITH WATER LIBERATES TOXIC GAS**

**CONTACT WITH ACID LIBERATES FLAMMABLE AND POISONOUS GAS**

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

**CAUSES SEVERE SKIN AND EYE BURNS**

**DUST, MIST OR VAPOUR EXTREMELY IRRITATING TO THE EYES AND RESPIRATORY TRACT**

**MAY CAUSE DELAYED LUNG DAMAGE**

**POISON**

**MAY BE FATAL OR HARMFUL IF INHALED OR SWALLOWED**

**HARMFUL IF ABSORBED THROUGH SKIN**

**STENCH**

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Do not breathe dust.  
Do not get in eyes, on skin, or on clothing.  
Minimize dust generation and accumulation.  
Keep container closed.  
Use only with adequate ventilation.  
Wash thoroughly after handling.

**FIRST AID:** If inhaled, remove to fresh air. Get medical attention. 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 immediately. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control centre immediately. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes. If swallowed, DO NOT induce vomiting. Rinse mouth. Call a physician or poison control centre immediately. Never give anything by mouth to an unconscious person.

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-3, S-3, F-1, C-0

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

**Product name:** KODAK Sepia Toner, Working solution (Bleach Bath)

**Product code:** 1691757 - Working solution (Bleach Bath)

**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:** None.

**Product Use:** Professional photographic processing solution, For industrial use only.

## 2. Hazards identification

**EXPECTED TO BE A LOW HAZARD FOR RECOMMENDED HANDLING**

**HMIS III Hazard Ratings:** Health - 0, Flammability - 0, Reactivity (Stability) - 0

**NFPA Hazard Ratings:** Health - 0, Flammability - 0, Instability - 0

NOTE: HMIS III and NFPA 704 (2007) 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. To adequately address safe handling, ALL information in this MSDS must be considered.

## 3. Composition/information on ingredients

Weight %	Components - (CAS-No.)
0.1 - < 1	Potassium bromide (7758-02-3)

## 4. First aid measures

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

**Eyes:** Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur.

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

**Ingestion:** If swallowed, get medical attention if symptoms occur.

## 5. Fire-fighting measures

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

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**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. 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.

**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.

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

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

### 9. Physical and chemical properties

**Physical form:** liquid

**Colour:** colourless

**Odour:** odourless

**Specific gravity:** 1.00 - 1.02

**Vapour pressure (at 20.0 °C (68.0 °F)) :** 24 mbar (18.0 mm Hg)

**Vapour density:** 0.6



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**Volatile fraction by weight:** > 99 %

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

**Water solubility:** complete

**pH:** 8.0

**Flash point:** does not flash

## 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

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

**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.

## 12. Ecological information

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

### Potential Toxicity:

Toxicity to fish: > 100 mg/l

Toxicity to daphnia: > 100 mg/l

Toxicity to other organisms: > 100 mg/l

**Persistence and degradability:** Not applicable

**Chemical Oxygen Demand (COD):** 2 g/l

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**Biochemical Oxygen Demand (BOD):** 0.05 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

For transportation information, go to: [www.kodak.com/go/ship](http://www.kodak.com/go/ship).

## 15. Regulatory information

### Notification status

Regulatory List	Notification status
EINECS	y (positive listing)
TSCA	y (positive listing)
AICS	y (positive listing)
DSL	y (positive listing)
ENCS (JP)	y (positive listing)
KECI (KR)	y (positive listing)
PICCS (PH)	y (positive listing)
INV (CN)	y (positive listing)

A N (Negative listing) 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.

### Other regulations

American Conference of Governmental Industrial Hygienists (ACGIH):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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California Prop. 65:	This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:	SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323):	Water
US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000):	No components are subject to the Massachusetts Right to Know Act.
US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5):	Water

## 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.

### US/Canadian Label Statements:

#### EXPECTED TO BE A LOW HAZARD FOR RECOMMENDED HANDLING

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.

**FIRST AID:** If inhaled, remove to fresh air. Wash off with soap and water. 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 extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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The Kodak logo is displayed in a bold, red, sans-serif font.

**IN CASE OF SPILL:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. 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-1, F-0, C-0

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

**Product name:** KODAK Sepia Toner, Working solution (Toning Bath)

**Product code:** 1691757 - Working solution (Toning Bath)

**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:** None.

**Product Use:** Professional photographic processing solution, For industrial use only.

## 2. Hazards identification

**EXPECTED TO BE A LOW HAZARD FOR RECOMMENDED HANDLING**

**HMIS III Hazard Ratings:** Health - 0, Flammability - 0, Reactivity (Stability) - 0

**NFPA Hazard Ratings:** Health - 0, Flammability - 0, Instability - 0

NOTE: HMIS III and NFPA 704 (2007) 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. To adequately address safe handling, ALL information in this MSDS must be considered.

## 3. Composition/information on ingredients

Weight %	Components - (CAS-No.)
100	Non-Hazardous Components (proprietary)

## 4. First aid measures

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

**Eyes:** Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur.

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

# Material Safety Data Sheet



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**Special Fire-Fighting Procedures:** None (noncombustible)

**Hazardous Combustion Products:** None (noncombustible)

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

## 6. Accidental release measures

Absorb spill with inert material, then place in a chemical waste container. Clean surface thoroughly to remove residual contamination.

## 7. Handling and storage

**Personal precautions:** Avoid prolonged or repeated breathing of mist or vapour. Use only with adequate ventilation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

**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.

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

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

## 9. Physical and chemical properties

**Physical form:** liquid

**Colour:** colourless

**Odour:** odourless

**Specific gravity:** 1.00

**Vapour pressure (at 20.0 °C (68.0 °F)) :** 24 mbar (18.0 mm Hg)

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**Vapour density:** 0.6

**Volatile fraction by weight:** 95 - 100 %

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

**Water solubility:** complete

**pH:** > 12

**Flash point:** does not flash

## 10. Stability and reactivity

**Stability:** Stable under normal conditions.

**Incompatibility:** Acids.

**Hazardous decomposition products:** None under normal conditions of use.

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

## 11. Toxicological information

### Effects of Exposure

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

**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.

## 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):	> 100 mg/l
Toxicity to algae (IC50):	> 100 mg/l
Toxicity to other organisms (EC50):	no data available

**Chemical Oxygen Demand (COD):** ca. 3 g/l

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## 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

### Notification status

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# Material Safety Data Sheet



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