

Kodak

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Material Safety Data Sheets**KODAK Hypo Clearing Agent**

MATERIAL SAFETY DATA SHEET

200000848/F/USA

Approval Date: 03/09/2000

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: KODAK Hypo Clearing Agent

Catalog Number(s): 146 4254 - To Make 5 gallon (U.S.)
 146 4262 - To Make 25 gallon (U.S.) 153 3942 - To
 Make 1 1/4 gallon (U.S.)

Manufacturer/Supplier: EASTMAN KODAK COMPANY, Rochester, New York 14650

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

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

Synonym(s): Concentrate: KAN 354583; PCD 0515; F-0091.000
 Working solution: KAN 966361

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry No.)

Concentrate:

75-80 Sodium sulfite (007757-83-7)
15-20 Sodium metabisulfite (007681-57-4)
1-5 Sodium citrate (000068-04-2)
1-5 Ethylenediaminetetraacetic acid tetrasodium salt (000064-02-8)

Working solution:

95-99 Water (007732-18-5)
1-5 Sodium sulfite (007757-83-7)
< 1 Sodium bisulfite (007631-90-5)

3. HAZARDS IDENTIFICATION

Concentrate:

CONTAINS: Sodium sulfite (007757-83-7); Sodium metabisulfite (007681-57-4)
DANGER!
MAY CAUSE EYE IRRITATION OR BURNS
MAY BE HARMFUL IF INHALED OR SWALLOWED
CAUSES SKIN IRRITATION

DUST IRRITATING TO RESPIRATORY TRACT
MAY LIBERATE SULFUR DIOXIDE

HMIS Hazard Ratings:

Health - 3, Flammability - 0, Reactivity - 0, Personal Protection - C

NFPA Hazard Ratings:

Health - 2, Flammability - 0, Reactivity (Stability) - 0

Working solution:

CONTAINS: Sodium sulfite (007757-83-7); Sodium bisulfite (007631-90-5)

WARNING!

MAY BE HARMFUL IF SWALLOWED

HMIS Hazard Ratings:

Health - 1, Flammability - 0, Reactivity - 0, Personal Protection - A

NFPA Hazard Ratings:

Health - 1, Flammability - 0, Reactivity (Stability) - 0

NOTE: HMIS and NFPA 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. The personal protection index is only intended for general guidance on personal protection equipment (PPE) that is suitable for the potential hazards of the material. PPE (e.g., respirators) may not be needed if engineering controls (e.g., local ventilation) are adequate. An asterisk (*), in the HMIS health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

4. FIRST-AID MEASURES

Inhalation: If symptomatic, move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eyes:

Concentrate: Immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

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

Skin:

Concentrate: Immediately flush 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 reuse. Destroy or thoroughly clean contaminated shoes.

Working solution: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion:

Concentrate: Do NOT induce vomiting. Give victim a glass of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Working solution: Drink 1-2 glasses of water. Seek medical attention. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use appropriate agent for adjacent fire.

Special Fire-Fighting Procedures:

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

Working solution: None (noncombustible)

Hazardous Combustion Products:

Concentrate: None (noncombustible) (see also Hazardous Decomposition Products section)

Working solution: None (noncombustible)

Unusual Fire and Explosion Hazards: None

6. ACCIDENTAL RELEASE MEASURES

Concentrate: Flush to sewer with large amounts of water. Otherwise, sweep up and place in a container for chemical waste. Avoid generating dust. Clean surface thoroughly to remove residual contamination.

Working solution: Flush to sewer with large amounts of water. Otherwise, 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 Precautionary Measures:

Concentrate: Avoid breathing dust. Do not get in eyes and avoid contact with skin and clothing. Avoid contact with skin. Use with adequate ventilation. Wash thoroughly after handling.

Working solution: Avoid breathing mist or vapor. Avoid contact with eyes and prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: No special precautionary measures should be needed under anticipated conditions of use.

Storage:

Concentrate: Keep container closed. Keep away from incompatible substances (see Incompatibility section).

Working solution: Keep container closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH Threshold Limit Value (TLV):

Sodium metabisulfite: 5 mg/m³ TWA
Sodium bisulfite: 5 mg/m³ TWA
Sulfur dioxide: 5.2 mg/m³ TWA; 13 mg/m³ STEL

OSHA (USA) Permissible Exposure Limit (PEL - 1971 Table Z-1 Values):

Sulfur dioxide: 13 mg/m³ TWA

Ventilation:

Concentrate: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Working solution: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions.

Respiratory Protection:

Concentrate: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn.

Respirator type: Dust. 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 OSHA Standard 29 CFR 1910.134.

Working solution: None should be needed.

Eye Protection:

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

Working solution: It is a good industrial hygiene practice to minimize eye contact. Wear safety glasses with side shields (or goggles).

Skin Protection:

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

Working solution: It is a good industrial hygiene practice to minimize skin contact. For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Recommended Decontamination Facilities: Eye bath, safety shower, washing facilities

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:

Concentrate: Solid

Working solution: Liquid

Color:

Concentrate: White
Working solution: Colorless
Odor: Odorless
Specific Gravity (water = 1):
Concentrate: >1.00
Working solution: 1.02
Vapor Pressure at 20°C (68°F):
Concentrate: Negligible
Working solution: 24 mbar (18 mm Hg)
Vapor Density (Air = 1):
Concentrate: Not applicable
Working solution: 0.6
Volatile Fraction by Weight:
Concentrate: Negligible
Working solution: 95-99%
Boiling Point:
Concentrate: Not applicable
Working solution: >100°C (>212°F)
Melting Point:
Concentrate: Not available
Working solution: Not applicable
Solubility in Water:
Concentrate: Appreciable
Working solution: Complete
pH:
Concentrate: Not applicable
Working solution: 7
Flash Point:
Concentrate: Not applicable, noncombustible solid
Working solution: None, noncombustible liquid

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility:

Concentrate: Strong acids

Hazardous Decomposition Products:

Concentrate: Sulfur dioxide, carbon dioxide, carbon monoxide

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

Inhalation:

Concentrate: May cause irritation to the mucous membranes and upper respiratory tract. May be harmful if inhaled. In contact with strong acids or if heated, sulfites may liberate sulfur dioxide gas. Sulfur dioxide gas is irritating to the respiratory tract. Some asthmatics or hypersensitive individuals may experience difficult breathing.

Working solution: Expected to be a low hazard for recommended handling. In

contact with strong acids or if heated, sulfites may liberate sulfur dioxide gas. Sulfur dioxide gas is irritating to the respiratory tract. Some asthmatics or hypersensitive individuals may experience difficult breathing.

Eyes:

Concentrate: May cause irritation or burns.

Working solution: No specific hazard known. May cause transient irritation.

Skin:

Concentrate: Causes irritation. This material has a low potential to cause allergic skin reactions; however, cases of human skin sensitization have been reported.

Working solution: This material has a low potential to cause allergic skin reactions; however, cases of human skin sensitization have been reported.

Ingestion:

Concentrate: May be harmful if swallowed. May cause burns of the gastrointestinal tract if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Working solution: May be harmful if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Acute Toxicity Data:

Oral LD-50 (rat): >1600 mg/kg

Data for sodium bisulfite:**Acute Toxicity Data:**

Oral LD-50 (rat): 800-1600 mg/kg

Skin irritation: slight to moderate

Data for sodium metabisulfite:**Acute Toxicity Data:**

Oral LD-50 (female rat): 1131 mg/kg

Oral LD-50 (male rat): 1903 mg/kg

Dermal LD-50: > 1.0 g/kg

Eye irritation: strong

Skin irritation: slight to moderate

Skin sensitization: negative

Repeated skin application: moderate

12. ECOLOGICAL INFORMATION

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

	Concentrate	Working Solution
Potential Toxicity		
Fish LC50 mg/l:	>100	>100
Daphnid EC50 mg/l:	>100	>100
Algal IC50 mg/l:	>100	>100
Organics Readily Degradable (>70%):	Yes (7 days)	Yes (7 days)
Potential Bioaccumulation:	Log Pow <1	Log Pow <1
COD (approximate g/l):	150	5
BOD5 (approximate g/l):	135	3
Potential Toxicity Waste treatment microorganisms EC50 (mg/l):	>100	>100

After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Flush to sewer with large amounts of water. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

For transportation information regarding this product call the Kodak Worldwide Transportation Hazmat Hot Line: (585) 722-2400 between 8 a.m. and 5 p.m. (Eastern Standard Time), Monday through Friday.

15. REGULATORY INFORMATION

- Material(s) known to the State of California to cause cancer: None
- Material(s) known to the State of California to cause adverse reproductive effects: 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
 - National Toxicology Program (NTP): None
 - Occupational Safety and Health Administration (OSHA): None
- Chemical(s) subject to the reporting requirements of 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:

the protection of the environment.

R-2, S-3, F-0, C-0

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



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Concentrate:

CONTAINS: Sodium sulfite (007757-83-7); Sodium metabisulfite (007681-57-4)
DANGER!

MAY CAUSE EYE IRRITATION OR BURNS
MAY BE HARMFUL IF INHALED OR SWALLOWED
CAUSES SKIN IRRITATION
DUST IRRITATING TO RESPIRATORY TRACT
MAY LIBERATE SULFUR DIOXIDE

Do not get in eyes and avoid contact with skin and clothing.
Avoid breathing dust.
Use with adequate ventilation.
Wash thoroughly after handling.

FIRST AID: If swallowed, do NOT induce vomiting. Give victim a glass of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. If inhaled, move to fresh air. Treat symptomatically. In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

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 SPILL: Sweep or scoop up and remove.

Working solution:

CONTAINS: Sodium sulfite (007757-83-7); Sodium bisulfite (007631-90-5)
WARNING!

MAY BE HARMFUL IF SWALLOWED

Avoid breathing mist or vapor.
Avoid contact with eyes and prolonged or repeated contact with skin.
Use with adequate ventilation.
Wash thoroughly after handling.

FIRST AID: If swallowed, seek medical advice. Never give anything by mouth to an unconscious person.

Keep out of reach of children.

For additional information, see Material Safety Data Sheet (MSDS) for this material.

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