

45-075

## MATERIAL SAFETY DATA SHEET

EASTMAN KODAK COMPANY  
343 State Street  
Rochester, New York 14650

For Emergency Health, Safety, and Environmental Information, call 716 722-5151  
For other purposes, call the Marketing and Distribution Center in your area.

Revised Date of Preparation: 6/20/86

Kodak Accession Number: 354617

## SECTION I. IDENTIFICATION

*school item*

- Product Name: KODAK Fixer
- Formula: Solid Mixture
- Kodak Photographic Chemicals Catalog Number(s): CAT 197 1720 - To Make 1 Quart; CAT 197 1738 - To Make 1/2 Gallons; CAT 197 1746 - To Make 1 Gallon; CAT 197 1753 - To Make 5 Gallons; CAT 123 4699 - To Make 32 Ounces; CAT 123 8146 - To Make 128 Ounces; CAT 807 7927 - Kit
- Mixture Number: 713
- Kodak Hazard Rating Codes: R: 1 S: 1 F: 1 C: 0

## SECTION II. PRODUCT AND COMPONENT HAZARD DATA

A.	COMPONENT(S):	Percent	TLV(R)	Kodak Accession No.	CAS Reg. No.
	Sodium thiosulfate	70-80	---	900884	7772-98-7
	Ammonium alum	10-15	---	132500	7784-25-0
	Sodium metabisulfite	5-10	5 mg/m3	903498	7681-57-4
	Sodium acetate	5-10	---	900227	127-09-3

## B. PRECAUTIONARY LABEL STATEMENT(S):

LOW HAZARD FOR RECOMMENDED HANDLING

## SECTION III. PHYSICAL DATA

- Appearance and Odor: White powder; odorless
- Melting Point: Not Available
- Vapor Pressure: Negligible
- Evaporation Rate (n-butyl acetate = 1): Negligible
- Vapor Density (Air = 1): Not Applicable
- Volatile Fraction by Weight: Negligible
- Specific Gravity (H2O = 1): Not Available
- Solubility in Water (by Weight): Appreciable

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**SECTION IV. FIRE AND EXPLOSION HAZARD DATA**

- Extinguishing Media: Water spray; Dry chemical; Carbon dioxide
- Special Fire Fighting Procedures:  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- Unusual Fire and Explosion Hazards:  
Fire or excessive heat may cause production of hazardous decomposition products.

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**SECTION V. REACTIVITY DATA**

- Stability: Stable
- Incompatibility: Mineral acids; oxidizers
- Hazardous Decomposition Products:  
Oxides of nitrogen and sulfur may be present.
- Hazardous Polymerization: Will not occur.

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**SECTION VI. TOXICITY AND HEALTH HAZARD DATA**

A. THRESHOLD LIMIT VALUE: See Section II

B. EXPOSURE EFFECTS:

Inhalation: Low hazard for usual industrial handling.

Eyes: No specific hazard known to Eastman Kodak Company.  
However, any material that contacts the eye may be irritating.

Skin: Low hazard for usual industrial handling.

C. FIRST AID: In case of eye contact, flush with plenty of water.

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**SECTION VII. PERSONAL PROTECTION AND CONTROLS**

A. VENTILATION:

Good general ventilation should be sufficient.

B. SKIN AND EYE PROTECTION:

Safety glasses should be worn in any type of industrial chemical handling.

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**SECTION VIII. SPECIAL STORAGE AND HANDLING PRECAUTIONS**

Keep container tightly closed and away from strong acids or oxidizers.

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**SECTION IX. SPILL, LEAK, AND DISPOSAL PROCEDURES**

Flush to an acid-free sewer with large amount of water.  
Discharge, treatment, or disposal may be subject to federal, state, or local laws.

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**SECTION X. ENVIRONMENTAL EFFECTS DATA**

This chemical formulation has not been tested for environmental effects. Some laboratory test data and published data are available for the major components of this chemical formulation, and these data have been used to provide the following estimate of environmental impact: (1,2)

This chemical formulation has a moderate biological oxygen demand, and it is expected to cause some oxygen depletion in aquatic systems. It is expected to have a low potential to affect aquatic organisms, secondary waste treatment microorganisms, and the germination and growth of some plants. The components of this chemical formulation are biodegradable and are not likely to bioconcentrate. If diluted with a large amount of water, a moderate quantity of this chemical formulation released into the environment is not expected to have a significant impact.

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**SECTION XI. TRANSPORTATION**

For transportation information regarding this product, please phone the Eastman Kodak Distribution Center nearest you: Rochester, NY (716) 254-1300; Oak Brook, IL (312) 654-5300; Chamblee, GA (404) 455-0123; Dallas, TX (214) 241-1611; Whittier, CA (213) 945-1255; Honolulu, HI (808) 833-1661.

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**SECTION XII. REFERENCES**

1. Unpublished Data. Health, Safety, and Human Factors Laboratory. Eastman Kodak Company, Rochester, New York.
2. Battelle's Columbus Laboratories, Water Quality Critical Data Book - Vol. 3 - Effects of Chemicals on Aquatic Life - Selected Data from the Literature Through 1968, for the U.S. Environmental Protection Agency, Project No. 18050 GWV, Contract No. 68-01-007, May 1971.

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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 the 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.

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