

CAT 197 1720 197 1746
197 1738 197 1753

197 1761
123 4699
123 6298
123 8146



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 all other purposes, call the Marketing and Distribution Center in your area.

Date of Preparation: 1/14/83 Revised

Approved by U.S. Department of Labor

SECTION I. IDENTIFICATION

- Product Name: KODAK Fixer
- Formula: Solid Mixture
- Formula Date: 4/20/81
- 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 197 1761 - To Make 25 Gallons; CAT 123 4699 - To Make 32 Ounces; CAT 123 6298 - To Make 64 Ounces; CAT 123 8146 - To Make 128 Ounces
- Mixture Number: 713
- Kodak Accession Number: 354617

SECTION II. PRODUCT AND COMPONENT HAZARD DATA

A. COMPONENT(S):	Percent	TLV*	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/m ³	903498	7681-57-4
Sodium acetate	5-10	---	900227	127-09-3

B. PRECAUTIONARY LABEL STATEMENT(S):

No health hazard warning language is needed on the containers.

SECTION III. PHYSICAL DATA

- Appearance and Odor: White powder; odorless
- Boiling Point: Not Applicable
- Vapor Pressure: Negligible
- Evaporation Rate (n-butyl acetate = 1): Not Applicable
- Vapor Density (Air = 1): Not Applicable
- Volatile Fraction by Weight: Negligible
- Specific Gravity (H₂O = 1): > 1.0
- pH: Not Applicable
- Solubility in Water (by Weight): Appreciable

SECTION IV. FIRE AND EXPLOSION HAZARD DATA

- Flash Point: None
- Flammable Limits in Air (% by volume in air): None
- Extinguishing Media: Water spray
- Special Fire Fighting Procedures: None
- Unusual Fire and Explosion Hazards: None

SECTION V. REACTIVITY DATA

- Stability: Stable
- Incompatibility: Avoid mineral acids
- Hazardous Decomposition Products: Sulfur dioxide
- Hazardous Polymerization: Will not occur.

SECTION VI. TOXICITY AND HEALTH HAZARD DATA

- A. THRESHOLD LIMIT VALUE: See Section II
- B. EXPOSURE EFFECTS: Low hazard
- C. FIRST AID: In case of contact, flush areas with plenty of water.

SECTION VII. PERSONAL PROTECTION AND CONTROLS

- A. RESPIRATORY PROTECTION: None should be needed.
- B. VENTILATION:

Local Exhaust: None should be needed.

Mechanical (General): Recommended

- C. SKIN AND EYE PROTECTION:

None should be needed, but good industrial hygiene practice should be followed.

SECTION VIII. SPECIAL STORAGE AND HANDLING PRECAUTIONS

Keep tightly closed. Store in cool, dry place.

SECTION IX. SPILL, LEAK, AND DISPOSAL PROCEDURES

Flush to an acid-free sewer with large amount of water.
Federal, state, and local regulations take precedence.

SECTION X. ENVIRONMENTAL EFFECTS DATA

A. SUMMARY:

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.

SECTION XI. TRANSPORTATION

Transportation information may be obtained by requesting an EXTERNAL TRANSPORTATION ADDENDUM sheet by catalog number(s) from Kodak Publications Data Services, Eastman Kodak Company, 343 State Street, Rochester, New York 14650.

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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