

MATERIAL SAFETY DATA SHEET
EASTMAN KODAK COMPANY

Date of Revision: 05/21/91

Kodak Accession Number: 454513

PRODUCT INFORMATION

Product Name: KODALITH RT Liquid Developer, Part B
Product Use: Photographic processing chemical
Formula: Aqueous mixture
Kodak Catalog Number(s): CAT 106 1639 - To Make 12 Gallons
Solution Number: 5158
Kodak's Hazard Rating Codes: R: 1 S: 3 F: 0 C: 0

Manufacturer/Supplier:
Eastman Kodak Company
343 State Street
Rochester, New York 14650
USA

For Emergency Information: (716) 722-5151
For other purposes, call the Marketing and Distribution Center in your area.

COMPONENT INFORMATION

	Weight Percent	CAS Number	Accession Number
Water	75-80	7732-18-5	035290
Potassium carbonate	5-10	584-08-7	900409
Sodium carbonate	5-10	497-19-8	900860
*Potassium hydroxide	1-5	1310-58-3	901383

*Principal Hazardous Component(s)

PHYSICAL DATA

Appearance and Odor: Clear colorless solution; odorless
Boiling Point: GT 100 C (GT 212 F) @ 760 mmHg
Vapor Pressure: ca. 18 mmHg @ 20 C
Evaporation Rate (n-butyl acetate = 1): Not Available
Vapor Density (Air = 1): ca. 0.6
Volatile Fraction by Weight: ca. 75 %
Specific Gravity (water = 1): 1.196
pH: GT 13.0
Solubility in Water (by Weight): Complete

GT = Greater than; LT = Less than

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FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: None
EXTINGUISHING MEDIA: Not Applicable
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus
and protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

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REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY: Strong acids
HAZARDOUS DECOMPOSITION PRODUCTS: None
HAZARDOUS POLYMERIZATION: Will not occur.

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TOXICOLOGICAL PROPERTIES

EXPOSURE LIMITS:
Component: Potassium hydroxide
ACGIH TLV: 2mg/m3, ceiling - TWA (ACGIH 1990-1991)
OSHA PEL: 2mg/m3, ceiling - TWA

EXPOSURE EFFECTS:
Inhalation: LOW HAZARD FOR RECOMMENDED HANDLING.

Eyes: Causes eye burns.

Skin: Causes skin burns.

Ingestion: HARMFUL IF SWALLOWED. May cause burns or severe irritation of the
gastrointestinal tract.

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PROTECTION AND PREVENTIVE MEASURES

VENTILATION: Good ventilation* should be sufficient. Supplementary
ventilation or respiratory protection may be needed in special circumstances.

*Typically, 10 room volumes per hour is considered good general ventilation:
ventilation rates should be matched to conditions of use.

SKIN AND EYE PROTECTION: Wear goggles or face shield. Impervious gloves
should be worn.

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STORAGE AND DISPOSAL

SPECIAL STORAGE AND HANDLING PRECAUTIONS: Keep container tightly closed and
away from acids.

SPILL, LEAK, AND DISPOSAL PROCEDURES: Neutralize with sodium bisulfate.
Flush material to sewer with large amounts of water. Discharge, treatment,
or disposal may be subject to federal, state, or local laws.

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FIRST AID
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Inhalation: If symptomatic, remove to fresh air. Get medical attention if symptoms persist.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes and get prompt medical attention.

Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: If swallowed, do NOT induce vomiting. Immediately give victim a glass of water. Never give anything by mouth to an unconscious person.

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ENVIRONMENTAL EFFECTS
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This environmental effects summary is written to assist in addressing emergencies created by an accidental spill, which might occur during the shipment of this product, and in general, it is not meant to address discharges to sanitary sewers or publically owned treatment works.

Some laboratory test data and published data are available for the major components of this formulation. Although this product, as such, has not been tested for environmental effects, the data, mentioned above, have been used to provide the following estimates of potential environmental impact, in the event of an accidental spill: (1-3)

This formulation is a strongly alkaline aqueous solution, and this property is the only one expected to cause adverse environmental effects. It has no biological oxygen demand and will not cause oxygen depletion in aquatic systems. If neutralized, it is expected to have a low potential to affect aquatic organisms, secondary waste treatment microorganisms and the germination and growth of some plants. When neutralized and/or diluted with water, this formulation released directly or indirectly into the environment is not expected to have a significant impact.

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TRANSPORTATION
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For Transportation information regarding this product, please phone the Eastman Kodak Distribution Center nearest you: Rochester, NY (716) 588-3536 or 588-3573 or 588-3505; Oak Brook, IL (312) 954-6000; Chamblee, GA (404) 455-0123; Dallas, TX (214) 241-1611; Whittier, CA (213) 945-1255; Honolulu, HI (808) 833-1661.

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REFERENCES

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1. Unpublished data, Health and Environment Laboratories, Eastman Kodak Company, Rochester, New York.
 2. Battelle's Columbus Laboratories, Water Quality Criteria 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. 68-01-0007, May 1971.
 3. Kodak Publication J-41, "BOD5 and COD of Photographic Chemicals", Eastman Kodak Co., 1981.
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PREPARATION INFORMATION

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Health and Environment Laboratories
Eastman Kodak Company
Rochester, New York 14652-3615

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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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