MATERIAL SAFETY DATA SHEET
EASTMAN KODAK COMPANY

Date of Revision: 6/14/89  Kodak Accession Number: 427909

PRODUCT INFORMATION

Product Name: KODAK HC-110 Developer
Formula: Aqueous Mixture
Kodak Catalog Number(s): CAT 140 8962 - To Make 3 1/2 Gallons; CAT 140 8988 - To Make 2 Gallons
Solution Number: 4987
Kodak Hazard Rating Codes: R: 1  S: 2  F: 1  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

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight Percent</th>
<th>CAS Number</th>
<th>Accession Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>60-65</td>
<td>7732-18-5</td>
<td>035290</td>
</tr>
<tr>
<td>Diethanolamine-sulfur dioxide complex</td>
<td>40-45</td>
<td>63149-47-3</td>
<td>931981</td>
</tr>
<tr>
<td>*2-Aminoethanol</td>
<td>5-10</td>
<td>141-43-5</td>
<td>901597</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td>5-10</td>
<td>111-46-6</td>
<td>902041</td>
</tr>
<tr>
<td><em>Hydroquinone</em>*</td>
<td>8</td>
<td>123-31-9</td>
<td>900356</td>
</tr>
</tbody>
</table>

*Principal Hazardous Component(s)
**Chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

PHYSICAL DATA

Appearance and Odor: Brown solution, amine odor
Boiling Point: GT 100 C (GT 212 F)
Vapor Pressure: ca. 11 mmHg @ 20 C
Evaporation Rate (n-butyl acetate = 1): Not Available
Vapor Density (Air = 1): ca. 2.1
Volatile Fraction by Weight: ca. 70 %
Specific Gravity (H2O = 1): 1.249
pH: approx 9.0
Solubility in Water (by Weight): Complete

GT = Greater than; LT = Less than

C-0070.1001
84-0346
FIRE AND EXPLOSION HAZARD

FLASH POINT: None
EXTINGUISHING MEDIA: Water spray, dry chemical, Carbon dioxide, "Alcohol" foam
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Fire or excessive heat may cause production of hazardous decomposition products.

REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce carbon dioxide and probably carbon monoxide. Ammonia and oxides of sulfur and nitrogen may also be present.
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: Will not occur.

TOXICOLOGICAL PROPERTIES

EXPOSURE LIMITS:
Component: Hydroquinone
ACGIH TLV: 2mg/m³ - TWA (ACGIH 1989 - 1990)
OSHA PEL: 2mg/m³ - TWA

Component: 2-aminoethanol
ACGIH TLV: 3 ppm - TWA; 6 ppm - STEL (ACGIH 1989 - 1990)
OSHA PEL: 3 ppm - TWA; 6 ppm - STEL

EXPOSURE EFFECTS:
Inhalation: Vapor may cause upper respiratory tract irritation
Eyes: May cause irritation. Vapor may cause eye irritation.

Skin: Prolonged or repeated skin contact may cause skin irritation. Repeated skin contact may result in an allergic skin reaction.

Ingestion: May be harmful if swallowed.

TOXICITY DATA:

<table>
<thead>
<tr>
<th>TEST</th>
<th>SPECIES</th>
<th>RESULT (1)</th>
<th>CLASSIFICATION (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>GT 3200 mg/kg</td>
<td>Slightly toxic</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>Guinea Pig</td>
<td>Strong irritation</td>
<td></td>
</tr>
<tr>
<td>Eye Irritation</td>
<td>Rabbit</td>
<td>Moderate irritation</td>
<td></td>
</tr>
<tr>
<td>Skin Absorption</td>
<td>Guinea Pig</td>
<td>No evidence at 20 mL/kg</td>
<td></td>
</tr>
</tbody>
</table>

PROTECTION AND PREVENTIVE MEASURES

VENTILATION: Good general ventilation should be sufficient.
SKIN AND EYE PROTECTION: Protective gloves should be worn. Safety glasses with side shields should be worn. The routine use of a non-alkaline (acid) type of hand cleaner will help minimize the possibility of allergic skin reaction.

STORAGE AND DISPOSAL

SPECIAL STORAGE AND HANDLING PRECAUTIONS: Keep from contact with oxidizing materials.

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

FIRST AID

Inhalation: Remove to fresh air.

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

Skin: Flush skin with plenty of soap and water.

Ingestion: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

ENVIRONMENTAL EFFECTS DATA

This chemical formulation has not been tested for environmental effects.

TRANSPORTATION

For Transportation information regarding this product, please phone the Eastman Kodak Distribution Center nearest you: Rochester, NY (716) 588-9293; Oak Brook, IL (312) 954-6000; Chamblee, GA (404) 455-0123; Dallas, TX (214) 241-1611; Whittier, CA (213) 693-5222; Honolulu, HI (808) 833-1661.

REFERENCES


PREPARATION INFORMATION

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

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