MATERIAL SAFETY DATA SHEET

200001252/F/USA - N-0010.055D
Approval Date: 11/20/1992
Print Date: 11/21/1992
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: KODAK Pre-Bleach, Process E-6

Catalog Number(s): 164 6058 - To Make 1 gallon (U.S.)
181 5034 - Kit(s), To Make 1 gallon (U.S.)
824 9906 - Kit(s), To Make 1 gallon (U.S.)

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

For Emergency Health, Safety & Environmental Information, call: 716-722-5151

For Other Information, call the Marketing and Distribution Center in Your Area.

Synonym(s): Concentrate: KAN 471154; PCD 5684; N-0010.055
Working solution: KAN 471269

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry No.)

Concentrate:
65-70 Water (007732-18-5)
20-25 Stabilizing agent (proprietary)
5-10 Potassium sulfite (010117-38-1)
1-5 Ethylenediaminetetraacetic acid (000060-00-4)
2 Methanol (000067-56-1)
< 1 1-thioglycerol (000096-27-5)

Working solution:
90-95 Water (007732-18-5)
5-10 Stabilizing agent (proprietary)
1-5 Potassium sulfite (010117-38-1)
< 1 Ethylenediaminetetraacetic acid (000060-00-4)
< 1 Methanol (000067-56-1)
< 1 1-thioglycerol (000096-27-5)

3. HAZARDS IDENTIFICATION

Concentrate:

WARNING! CONTAINS: 1-thioglycerol (000096-27-5)
MAY CAUSE ALLERGIC SKIN REACTION
CONTACT WITH ACID LIBERATES HARMFUL GAS.
CONTACT WITH BASE LIBERATES HARMFUL GAS.
Working solution:

LOW HAZARD FOR RECOMMENDED HANDLING

4. FIRST-AID MEASURES

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

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

Skin:

Concentrate: Immediately remove contaminated clothing and shoes and wash with soap and plenty of water. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. Get medical attention.

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

Ingestion: Drink 1-2 glasses of water. Seek medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing Media:

Concentrate: Water spray, carbon dioxide (CO2), dry chemical, alcohol foam

Working solution: Use appropriate agent for adjacent fire.

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

Hazardous Combustion Products: Oxides of sulfur, carbon monoxide, carbon dioxide (see also Hazardous Decomposition Products section)

Unusual Fire and Explosion Hazards: None

6. ACCIDENTAL RELEASE MEASURES

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.
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7. HANDLING AND STORAGE

Personal Precautionary Measures:

Concentrate: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Working solution: Use with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion:

Concentrate: Keep from contact with oxidizing materials.

Working solution: No special precautionary measures should be needed under anticipated conditions of use.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

In contact with strong acids, the Stabilizing agent may liberate formaldehyde and sulfur dioxide. In contact with strong bases, the Stabilizing agent may liberate formaldehyde.

OSHA standard 29CFR 1910.1048 should be consulted for specific details regarding respiratory, skin, and eye protection against formaldehyde. The standard also provides for establishing regulated areas, respiratory protection programs, housekeeping, medical surveillance, recordkeeping and employee information and training when necessary.

Exposure Limits:

ACGIH Threshold Limit Value (TLV):

Methanol: 200 ppm TWA, 250 ppm STEL, Skin

OSHA (USA) Permissible Exposure Limit (PEL):

Methanol: 200 ppm TWA, 250 ppm STEL, Skin

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances.
Respiratory Protection: None should be needed. If formaldehyde is emitted at levels requiring respiratory protection, the following respiratory type should be worn: full-face with cartridges or canisters specifically approved by NIOSH for protection against formaldehyde or a Type C air-supplied. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29CFR 1910.134 and 29CFR 1910.1048.

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.

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, washing facilities, safety shower

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical Form: Liquid
- Color: Colorless
- Odor: Odorless
- Specific Gravity (water = 1):
  Concentrate: 1.221
  Working solution: 1.040-1.046
- Vapor Pressure at 20 C (68 F): 24 mbar (18 mm Hg)
- Vapor Density (Air = 1): 0.6
- Volatile Fraction by Weight:
  Concentrate: 70-75%
  Working solution: 90-95%
- Boiling Point: >100 C (>212 F)
- Solubility in Water: Complete
- pH:
  Concentrate: 6.1
  Working solution: 6.2-6.8
- Flash Point:
  Concentrate: None
  Working solution: None, noncombustible liquid

10. STABILITY AND REACTIVITY
Stability: Stable

Incompatibility: Strong oxidizing agents, strong acids, strong bases.

Hazardous Decomposition Products: Formaldehyde

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

Inhalation: Low hazard for recommended handling.

Eyes: No specific hazard known. May cause transient irritation.

Skin:

Concentrate: May cause allergic skin reaction.

Working solution: Low hazard for recommended handling.

Ingestion: Expected to be a low ingestion hazard.

12. ECOLOGICAL INFORMATION

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

Summary: Data for the major components of this material have been used to estimate the environmental impact of this material.

It is expected to have the following properties: a low biochemical oxygen demand and little potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination and/or early growth of some plants, a low potential to bioconcentrate. 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.

14. TRANSPORT INFORMATION

For transportation information regarding this product, please phone the Eastman Kodak Distribution Center nearest you: Rochester, NY (716) 588-3536 or 588-3573 or 588-3035; 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.

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: Methanol

16. OTHER INFORMATION

US/Canadian Label Statements:

Concentrate:

WARNING!
CONTAINS: 1-thioglycerol (000096-27-5)
MAY CAUSE ALLERGIC SKIN REACTION.
CONTACT WITH ACID LIBERATES HARMFUL GAS.
CONTACT WITH BASE LIBERATES HARMFUL GAS.

Avoid contact with eyes, skin, and clothing.
Wash thoroughly after handling.

FIRST AID: In case of skin contact, wash skin with soap and plenty of water. Get medical attention if symptoms occur. Remove contaminated clothing and shoes. Wash clothing before reuse. Destroy or thoroughly clean contaminated shoes.
Keep out of reach of children.

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

Additional hazard precautions for containers greater than 1 gallon of liquid or 5 pounds of solid:

Since emptied containers retain product residue, follow label warnings even after container is emptied.

IN CASE OF FIRE: Use water spray, carbon dioxide (CO2), dry chemical, alcohol foam

Working solution:

LOW HAZARD FOR RECOMMENDED HANDLING

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 the protection of the environment.