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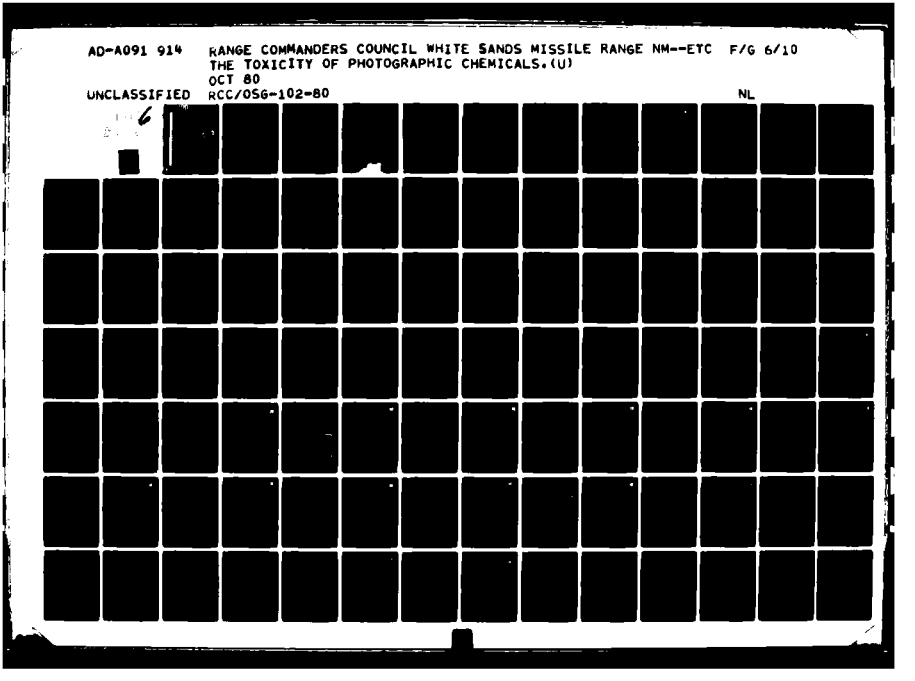

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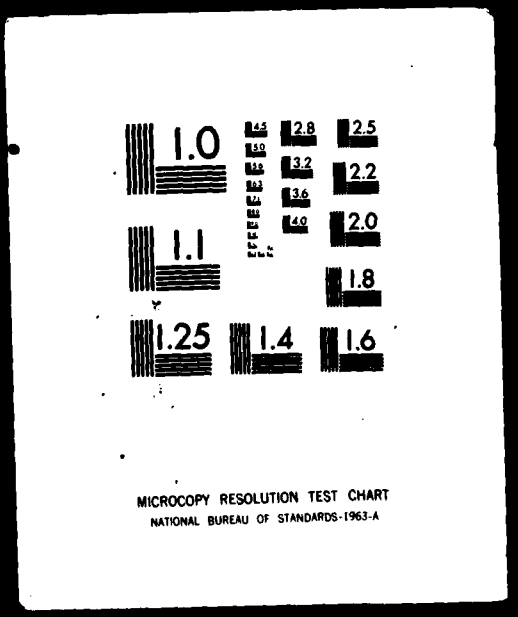

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THE TOXICITY OF PHOTOGRAPHIC CHEMICALS

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-OPTICAL SYSTEMS GROUP
INTER-RANGE INSTRUMENTATION GROUP
RANGE COMMANDERS COUNCIL

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PREFACE

This document was written by the Optical Systems Group (OSG) of the Range Commanders Council (RCC) to promote safe working conditions in photographic laboratories and to provide a comprehensive source of information pertinent to the toxicity of photographic chemicals. It includes safe handling techniques and information aimed at making laboratory technicians and managers aware of the importance of maintaining a hazard free work environment.

The Toxicity of Photographic Chemicals is published in loose-leaf format to make future updates easy. When new chemicals or solutions are introduced by the photo

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The OSG welcomes any comments or suggestions for improvements to this publication. Please forward such responses to the Secretariat, Range Commanders Council, STEWS-SA-R, USA White Sands Missile Range, New Mexico 88002.

DOCUMENT 102-80

THE TOXICITY OF PHOTOGRAPHIC CHEMICALS

Prepared by

OPTICAL SYSTEMS GROUP
RANGE COMMANDERS COUNCIL

October 1980

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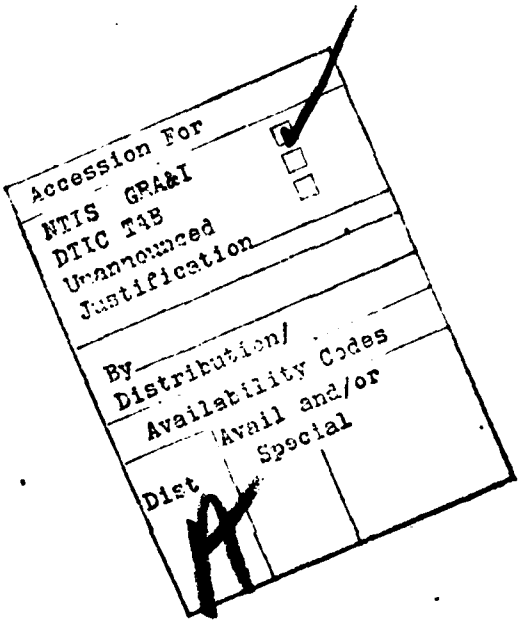
TABLE OF CONTENTS

	PAGE
PREFACE	v
INTRODUCTION	vii
THE TOXICITY OF PHOTOGRAPHIC CHEMICALS	1
Handling Precautions	1
Decontaminating Rubber Gloves	5
Mixing Large Quantities	5
Hazards of Specific Chemicals and Safe Handling	6
APPENDIXES	
A. Eastman Kodak Safe Handling Considerations	A-1
Eastman Kodak Material Safety Data Sheets	A-27
B. Ilford Chemicals	B-1



PREFACE

This document was written by the Optical System Group (OSG) of the Range Commanders Council (RCC) to promote safe working conditions in photographic laboratories and to provide a comprehensive source of information pertinent to the toxicity of photographic chemicals. It includes safe handling techniques and information aimed at making laboratory technicians and managers aware of the importance of maintaining a hazard free work environment.

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INTRODUCTION

During the past 20 years, many changes in photographic chemistries have taken place. These innovations include color and black and white systems and immersion, spray and viscous type processes. Along with faster access times have come higher temperature and/or pH processes which in most cases have caused chemicals to be of higher activity. In addition, new chemistries have been introduced composed of toxic aldehydes and boranes.

Although most of these advances have taken place since this document first appeared in 1957, published information relating to these changes has not kept pace. Rather than rewrite the complete text, the OSG decided to revise the old publication and add the latest chemistry and process hazards which are currently found in the photographic laboratory. Thus, Document 102-80 supersedes Document 102-57.

Obviously, toxicity problems are not confined to just the laboratory. Now, more than ever, they affect personnel assigned to the many field stations that have sprung up to support a variety of combat, space, oceanography, and research and development programs. It is within these outlying field stations that less experienced photo technicians will likely be employed. Negating potential hazards and providing adequate protection for these personnel are difficult challenges. It is intended that the precautionary steps outlined in this document be applied as well by field-lab personnel.

The major problems confronting photo processing operations today involve the disposal of photographic solutions into water treatment plants while at the same time meeting the stringent antipollution parameters established by the U. S. Environmental Protection Agency (EPA) and the codes instituted by state and city governments. In the past, this was not a problem because of the high wash-water dilution process commonly used. EPA standards no longer allow this method to be employed. Instead, chemicals must be significantly removed or oxidized into a harmless state before being discharged into local sewage networks. Safe-handling precautions that apply to photographic solutions are listed in appendix A of this document to assist personnel in meeting these requirements. Examples of the toxic materials used in photographic laboratories are also provided. This is by no means a complete rundown but serves as a guide to obtaining more detailed listings.

Each photographic laboratory manager must have an emergency plan of action prepared in advance which will adequately protect the health of the laboratory workers. This document contains guidelines for creating such a plan. In addition, each manager should ensure that safety features such as emergency eye wash sprays are available at all times. The local poison control facilities at the neighborhood hospital should be notified of the chemistries being used in the laboratory, and the unit's telephone numbers posted and available to all personnel.

Information regarding safe handling procedures for toxic chemicals can be obtained from the various manufacturers. Eastman Kodak maintains a 24-hour poison information center (see figure 1). Ilfrod, Inc. also maintains a 24-hour poison information center and may be contacted at 70 West Century Road, Paramus, New Jersey 07652 or reached by telephone at (914) 478-3131 for more details on health hazards. In addition, precautionary notices appear on film processor packaging and on premix kits.

If emergency information is needed:

KODAK MAINTAINS 24-HOUR POISON INFORMATION.

The telephone numbers are:

Area Code **(716) 458-1000**

Business hours: Extension **85566**

After hours and holidays or weekends: Extension **74755**

If questions arise about hazards of photochemicals:

READ THE LABEL: The precautionary and first-aid statements presented on the label are carefully thought out and will answer many of the questions raised about photochemical hazards. If additional information is needed concerning physical effects resulting from contact with Kodak chemicals, write to Eastman Kodak Company, Health and Safety Laboratory, Kodak Park, Rochester, New York 14650.

EASTMAN KODAK COMPANY • ROCHESTER, N.Y. 14650

Kodak Publication No. J-2A
Wall Card

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Figure 1.

THE TOXICITY OF PHOTOGRAPHIC CHEMICALS

All photographic laboratories, from the largest multimillion foot high-speed production facility to lower volume, one-room laboratories, have the same problem: how to deal with toxic photographic chemicals in a safe manner. The safe handling of photographic chemicals and solutions is an important prerequisite to removing the greatest hazards associated with the photo processing operation. Informing workers of the various safety precautions which must be followed when toxic chemicals are used is the first step in this process.

Handling Precautions

Using reasonable care in handling hazardous substances makes it easier to control unnecessary and often dangerous contact. At no time should concentrated liquids or dry chemicals come in contact with the skin or eyes. Photo lab personnel should always wear plastic or rubber gloves and work in a well-ventilated area when mixing chemicals and developing films. Ninety percent of toxicity problems can be avoided by using the proper safety equipment. It is important never to lean directly over a mixing container and to avoid breathing fumes or chemical dust.

If surface contact with a dangerous chemical does occur, the best procedure is to flood the affected external area with water. If a chemical is ingested, take nothing without first seeking immediate medical advice. In any case, contact a physician, hospital or poison control center at once. The telephone numbers for these services should be permanently posted by the phone nearest the chemical mixing room or darkroom area.

Although the list below is not all inclusive, it covers the compounds most likely to be encountered when mixing photographic processing ingredients. Always observe warnings and cautions appearing on chemical labels and in chemical formulas. But remember: there is no way a manufacturer, supplier or publisher can supervise your working methods. Special care should be taken when handling the following chemicals.

ACIDS. Always pour acid into water, or water-based solutions. Never the reverse. Do not pour concentrated acid into an alkaline solution without first diluting it. Pour acid slowly, stirring the solution continuously.

ALKALIS. Dissolve strong alkalis such as sodium and potassium hydroxide separately in cold water. Do not use a glass container because alkalis produce great amounts of heat as they dissolve and these extreme temperatures will cause most glass vessels to break. Put the container in a bucket of cold water when mixing to avoid such mishaps. Wear rubber gloves because acids and aklakis are corrosive and will burn or dissolve many organic materials, including skin.

CARBOLIC ACID (PHENOL). Poisonous and caustic.

FERRIC OXALATE. Corrosive.

FORMALDEHYDE. Poisonous vapors in sufficient concentration.

FORMALIN (FORMALDEHYDE-WATER SOLUTION). Poisonous.

IODINE. Corrosive crystals.

MERCURIC CHLORIDE; MERCURIC IODIDE. Deadly poisons; corrosives.

PHENOL. Poisonous and caustic.

POTASSIUM CYANIDE, SODIUM CYANIDE. Deadly poisons; dangerous to handle. Never mix with an acid, as cyanide fumes may be released.

POTASSIUM FERRICYANIDE. Poisonous in concentration.

POTASSIUM PERMANGANTE. Poisonous.

SILVER NITRATE. Caustic.

SODIUM DITHIONITE. Flammable. Keep dry; may ignite if damp.

THIOCARBAMIDE (THIOUREA). Extreme irritant.

Preventing Contact Dermatitis. "Dermatitis" is a broad term used to describe skin inflammation of any kind. However, the condition most often referred to as "dermatitis" by photographic workers is a skin allergy usually caused by prolonged or repeated contact with certain chemicals. This allergic response is more correctly termed "allergic contact dermatitis."

The precautionary information on the labels of most chemical containers indicates whether the ingredients inside can cause adverse skin reactions. Practically any chemical can be an allergent. In photography, the chemicals most likely to cause contact dematitis are the developing agents. Statistically, more people are affected by contact with color developing agents than those used in black and white processing. In addition, individuals have varying sensitivities to a particular chemical or combination of chemicals.

Dry chemicals can have the same effect on the skin as chemical solutions because they are dissolved by moisture in or on the skin. Most can avoid contact dermatitis by taking reasonable steps to prevent contact with harmful chemicals. Those who have a history of skin disorders or allergies may be more susceptible and should be particularly careful when handling chemicals. Sooner or later, a careless worker is quite likely to be affected. Often there is an initial period in which

no signs of problems stemming from contact with chemicals seem to appear. This period varies widely among individuals; it may last days, months, or sometimes years. During this time, it is common for a person to decide that in the absence of any obvious symptoms, he or she cannot be affected by the chemicals. Then, without warning, the skin may break out or blister; evidence of contact dermatitis. Thus, do not assume that dermatitis will not occur simply because it has not as yet.

The condition usually starts with persistent itching, scaling, and redness of the skin on the fingers, wrists or forearms. When these symptoms occur, it is essential to get medical advice immediately. Since photographic workers are as subject to nonchemically induced skin disorders as anyone else, a physician must evaluate each case of contact dermatitis in relation to all possible causes. Without a professional diagnosis, there is no way to be sure whether the condition is from poison ivy, contact with photographic chemicals, an allergic reaction to other household or industrial chemicals, or some other cause. If chemicals encountered in your work are the cause, inform your supervisor or in-plant medical department.

A person who has once suffered contact dermatitis as a result of handling a given chemical will develop it again if sufficient skin contact with the same agent reoccurs. In fact, such a person may even be more sensitive than before. For this reason, it is important to take extra care of the skin when working around and with toxic chemicals. There are no protective hand creams for this purpose. Such preparations, when applied to the hands, may introduce fatty material into the chemical solution and as a result, ruin the photographic material being processed. The best protection is to observe faithfully at all times the following safe handling precautions:

1. Read the labels on chemical containers carefully so that you will know what precautions to follow when handling the contents of each.

2. Avoid direct contact with chemicals whenever possible. Handle chemical solutions carefully to avoid splashing. Wipe up or wash away all spills at once. Do not raise dust when handling dry chemicals. Keep the working area clean, and launder clothing frequently. Keep all protective equipment such as goggles, rubber aprons, rubber gloves, and the like, free from chemicals.

3. Wear rubber gloves whenever possible. It is important to remember that gloves are effective in preventing contact with chemicals only when they are kept clean both inside and outside and when they are decontaminated to remove all traces of processing chemicals. (Refer to page 5 for information on decontaminating rubber gloves.) By using disposable rubber or plastic gloves decontamination procedures can be eliminated and time saved.

4. Wash your hands or other affected surface areas immediately with plenty of water in case of skin contact with chemicals, particularly developers. Then apply a pH balanced soap, such as Phisoderm or a

similar acid-type product (ordinary soaps which are alkaline are not as effective). Be sure to include the area between the fingers and any other areas of skin that may have come in contact with a toxic agent. A vigorous rubbing action removes chemicals that may be retained in the ridged texture of the skin.

5. Protect broken skin. A cut or abrasion may allow chemicals to penetrate more readily than when skin is intact. Such injuries increase the risk of getting dermatitis.

6. Protect your eyes by wearing goggles when you handle chemicals, particularly acids and corrosive alkalis or solutions that contain these chemicals. Keep the goggles clean so that chemicals are not brought into contact with the eyes.

7. Immediately flush eyes with plenty of cool water for 15 minutes in case of eye contact with chemicals. Use a gentle stream of water or a specially designed eye bath for this purpose. If necessary, get help to hold eyelids apart while washing them (your eyes must be open). Obtain medical attention immediately.

8. Launder frequently (at least twice each week) all clothing worn while handling chemicals. If a garment comes in contact with a chemical solution (for example, a sleeve is soaked), change the garment immediately.

9. Clean up chemical spills and splashes. Pick up spills of dry chemicals with a vacuum cleaner (preferably a wet type vacuum so that dry chemicals are not blown back into the air) or an external vacuum system. Once airborne, dry chemicals and the residue from dried chemical solutions can contaminate the working area.

10. Properly ventilate the workplace to rapidly carry away airborne chemical dust and vapors generated by chemical solutions. A ventilation rate of 30 ft^3/min per person in the work area is adequate. When vented hoods are used, the make-up air must be greater than the exhaust air to maintain positive air pressure of 0.05 inch water with entry ways closed. Objectionable or irritating vapors need to be removed by means of exhaust hoods or other devices that extract contaminants at the source. Before starting work, make sure all ventilation systems are operating. Wear the proper mask for the chemicals being mixed. Put fresh filters in the mask each day.

11. Train newcomers and temporary help in the proper way to handle chemicals.

12. Empty completely and rinse out all used chemical containers before discarding them. Because such containers, as well as contaminated waste material, can be dangerous to refuse collectors, proper disposal is essential.

13. Never use coffee cups, paper cups, drinking glasses, or any other container that might be mistaken for a drinking vessel to contain or measure chemicals.

14. Do not eat food or drink beverages in workrooms where chemicals are mixed or used. Those handling chemicals should always wash their hands before eating.

15. Dispose of used chemicals safely. The most common method of disposing of used photographic solutions is to pour them down the drain along with running water. To avoid undesirable chemical reactions between solutions, discard them one at a time and run plenty of water into the drain after each solution is discarded. Since dumping a large quantity of any chemical into sewers is a potential source of water pollution, large users of processing chemicals should assure that disposal practices meet federal, state and local regulations.

Decontaminating Rubber Gloves

To provide effective protection against skin contact with chemicals, rubber gloves must be cleaned to remove any processing chemicals which remain on them. After each daily use, gloves should be first rinsed with water and then hung to dry. NOTE: Examine the gloves for obvious damage, such as cracks or tears. To test for small punctures that may not be visible, fill the glove with water, close the wrist part by holding it tightly with one hand, and squeeze the glove with the other hand. Discard any gloves that leak or show signs of excessive wear.

Mixing Large Quantities

Generally speaking, any mix of chemicals can be expanded to make larger batches simply by multiplying the amount of each ingredient by an appropriate factor. Obviously, when mixing large quantities of solutions, close attention must be paid to proper handling procedures.

Again, providing adequate ventilation is of critical importance. Suction fans must be used to exhaust fumes into safer locations. NOTE: Most municipal codes have severe restrictions which apply to such activity.

Mixing personnel must wear protective clothing and breathing masks. When large quantities of dry chemicals are handled and poured, a significant amount of dust that can adversely affect personnel and contaminate surfaces and other equipment is raised.

Use sturdy containers and make certain the racks, shelves, or tables that support them are strong enough. The floor also must be able to support the considerable weight involved. The average weight of a liter of chemical solution is 1.1 kilograms (9.25 pounds per gallon).

Chemical reactions commonly generate heat. With certain acids and alkalis, the amount of heat increases as the concentration of the

chemical is increased. Careless handling can lead to boiling and spattering of solutions. Since plastic containers sometimes used to hold the chemicals can be heated to the point where they may lose shape, melt and as a result, leak, they should be avoided.

Motorized mixing devices are essential to ensure uniform batches and to dissolve each ingredient completely. Care should be taken to make certain mixers do not cause splashing or spattering or create oxidation because of excessive turbulence.

An emergency pull-chain shower head should be located in the bulk mixing area so personnel can immediately rinse chemicals from their bodies in case of accident. This is an Occupational Safety and Health Administration (OSHA) legal requirement backed up by federal, state, and usually, local ordinances.

Hazards of Specific Chemicals and Safe Handling

The chemicals used in photographic laboratories have been arbitrarily grouped for discussion into the following classes: Class I, Compounds to be Avoided; Class II, Highly Corrosive Compounds; Class III, Compounds with Allergenic Properties; and Class IV, Solvents. Attempts have been made to include in this document all chemicals used for large-scale motion picture processing in both black and white and common color systems. A few less common chemicals which require special mention have also been included.

Class I, Compounds to be Avoided

Hydrofluoric Acid
Hydrazine Salts
Bromine
Methanol (Methyl Alcohol, Wood Alcohol)
Mercuric Chloride or Nitrate
Potassium Cyanide
Thallium Salts (Ansco DA-1)

These compounds are all extremely dangerous. In general, they should not be used or kept in a photographic laboratory because the following less hazardous substitutes are available: sodium metabisulfite for hydrofluoric acid; sodium hydroxide (to increase pH) and polymeric thioethers for hydrazine salts; potassium persulfate for bromine; ethanol or isopropanol for menthanol; silver nitrate, hydroquinone and citric acid bath (expect a slight contrast increase) or cupric bromide followed by a silver salt solution (expect a large contrast increase) for mercuric chloride or nitrate; Farmer's Reducer (reduces density) for potassium cyanide; and potassium nitrate and a pH adjustment (accelerates the developer) for thallium salts. Ethyl alcohol is a good substitute for methyl alcohol for all photographic processing. Since arrangements can be made to obtain ethyl alcohol tax free for industrial purposes, it is a cost-effective substitute as well. If use of denatured alcohol is preferred, there are many specially denatured formulas approved by the Treasury Department which fit most photo processing needs.

Potassium cyanide and mercuric salts are used in old formulas for removing stains and intensifying images on negatives. Obviously, these processes are generally not applied to motion picture film, but occasionally someone attempts to use them on still negatives. Such applications should not be permitted.

Class II, Highly Corrosive Compounds

Acetic Acid, Glacial
Ammonia (Ammonium Hydroxide, Ammonia Water, Household Ammonia)
Formaldehyde, 37-percent Solution (Formalin)
Hydrochloric Acid
Hydrogen Peroxide (30 percent)
Nitric Acid
Oxalic Acid (also Sodium Oxalate)
Potassium Dichromate (Bichromate)
Potassium Hydroxide (also Sodium Hydroxide)
Silver Nitrate
Sodium Bisulfate (Sodium Acid Sulfate)
Sulfuric Acid
Succinaldehyde

The chemicals listed above are all extremely corrosive to the skin, in addition to possessing additional harmful characteristics. While most workers have learned to avoid deliberate skin contacts due to the nature of these chemicals, the major dangers come from accidental splashing of the compounds on the skin and in the eyes and from inhalation of their toxic vapors and mists. Assuming that first aid procedures are posted in many locations and protective devices (safety glasses, gloves, aprons, shields, etc.) are readily available, comments relating to the substances will be limited in this document to a few cases where misinformation or lack of information has created uncertainties within the photograhic industry.

Glacial acetic acid is one of the most dangerous chemicals handled in photographic laboratories. It is extremely dangerous, not only because it is a fire hazard and potential explosion hazard, but because it is handled so carelessly. Fortunately, the hazardous properties of acetic acid are modified dramatically when the chemical is diluted (vinegar at about 5-percent acetic acid is even edible). Unfortunately, because of the stable character of weak solutions, it is difficult to convince people that the concentrated material can be extremely dangerous.

Sax, in the *Handbook of Dangerous Materials* warns that storage and handling of glacial acetic acid "...is dangerous in contact with chromic acid (photographic tray cleaner), sodium peroxide or nitric acid."[1] In case of fire, acetic acid can be extinguished with water (fog or spray) or carbon dioxide. In some cases, fire retardant chemicals may be used on fires of this nature to good advantage.

[1]Newton I. Sax, *Handbook of Dangerous Materials* (New York: Reinhold Publishing Corp., 1951).

Glacial acetic acid should only be handled by personnel protected from toxic fumes by a gas mask, air line respirator, or some form of gas mask with a self-contained supply of air. This material should be handled only while under a hood which provides adequate ventilation. Once again, rubber gloves and aprons and other protective clothing such as boots should be worn, especially when working around large quantities of glacial acetic acid.

Generally, most photographic handbooks specify the use of 28-percent acetic acid which is still relatively safe. Although it can cause skin irritation and eye damage at this strength, it will not produce the horrible burns characteristic of contact with the more highly concentrated variety. However, as photographic operations expand, it becomes impractical from a financial standpoint to purchase 28-percent acetic acid at, say, $.40 per pound as contrasted with the glacial acetic acid at $.50 per pound. As a result, the use and storage of the concentrated product is widespread and, accordingly, the probability of a serious accident like the loss of an eye is more likely.

It is suggested that photographic laboratories limit the use of glacial acetic acids to one location, generally, the mix room. Personnel working in such a facility must be furnished the proper safety devices mentioned earlier and adequate ventilation must be provided (small respirators of the dust protective type do not work on acid vapors). Hence, a first dilution of the acid to approximately 38 to 40 percent can be made, and the safer material furnished for darkroom use.

One further note on acetic acid--it freezes at approximately 15.56°C (60°F). When it freezes, it expands and usually breaks any glass vessel it is contained in; a fact that is generally discovered the hard way. This creates a dangerous fire hazard because the acid will explode if the material is stored near any of the oxidizing chemicals mentioned earlier.

When liquid bromine was first introduced for use in the rejuvenation of bleach solutions for color processes, it was a sad day for safety engineers. Because this procedure is sound economically, it is highly recommended by the manufacturers' sales personnel.

Although the producers of liquid bromine advise caution in handling the material, this advice is provided in a low-key manner with the expectation that the user has competent technical help and the equipment to properly deal with such a dangerous chemical. This is simply not true in most cases because the average photographic laboratory lacks the needed hardware and because the technicians at these facilities who usually mix the solutions are not trained in the use of chemicals in this class. To make matters worse, many laboratories are purchasing what they believe is the proper equipment to cope with this material from photographic equipment manufacturers who also have no experience in handling chemicals of this nature themselves. Manufacturers of photographic equipment, managers of processing laboratories, photographers, and technicians employed in photographic operations are so used to taking advantage of the latitude inherent in most other photographic

processes that they do not realize there can be no deviation from established safety practices when using liquid bromine. For example: you can't open a container of liquid bromine under a hood and carry it fuming across the room to the mixing tank without serious consequences. Opening the container over the usual poorly designed mixing tank invites mishaps. A rubber lined tank with some sort of exhaust fan is not sufficient equipment for the handling of this material. Safety provisions must be introduced at all steps in the handling of bromine, not just the actual mixing. Again, such emergency equipment as air-pack gas masks, safety showers, eye wash fountains, and adequate ventilation systems are essential.

A comparison of the poisonous properties of bromine fumes with cyanide fumes may aid in the realization of the dangers of this material.

> "For Cyanide: Maximum Allowable Concentration in Air: 10 to 20 parts per million. The relative toxicity of this material is 16.5 (chlorine equals 1.0). Between 250-300 ppm in air is said to be immediately fatal to humans, and between 175-200 ppm would be fatal in 10 minutes. For Bromine: Maximum Allowable Concentration in Air: 0.15-1.0 ppm. (for chlorine: 0.35-2 ppm). The least detectable odor of bromine is of the order of 3.5 ppm; the least concentration that will cause irritation of the throat is 15.1 ppm, while 30.2 ppm will cause coughing. A concentration of 1,000 ppm is lethal after a few minutes exposure. Concentrations in the range of 40-60 ppm are dangerous to life for exposures of from 30-60 minutes. The maximum concentration that can be tolerated for 60 minutes is 4 ppm, and the maximum that can be tolerated for several hours without serious symptoms is 1 ppm."[2]

The significance of these figures can perhaps be better realized by considering that the evaporation of 5 grams (approximately 1.5 milliliters or 30 drops) of liquid bromine will produce 1 ppm in a room 10 by 10 by 8 feet; the evaporation of about three tablespoons of bromine will produce a concentration of 50 ppm in the same room. Bromine evaporates rapidly so that lethal concentrations can easily be encountered while attempting to clean up any accidental spills. These effects occur in addition to the extremely serious instantaneous burns produced if any of the liquid touches the skin.

Potassium persulfate rejuvenation can be substituted for the bromine process. Details on this method can be obtained from photographic material manufacturers such as Eastman Kodak in Rochester, New York. Potassium persulfate is recommended because it is one of the safer oxidizing agents to handle. Since potassium persulfate and organics do not mix, always keep them separated in storage.

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[2] *Ibid.*

The increased use of formaldehyde as a hardener in color processing is another cause for alarm. Because formaldehyde is particularly dangerous to the eyes, it should never be allowed to exceed 10 ppm. Frequent exposures can result in hypersensitivity and lead to rashes and skin ulcerations. Most photographic processing machines using solutions containing formaldehyde are not vented or designed to accommodate venting; a design shortcoming that needs attention.

Occasionally, laboratories will use 3-percent hydrogen peroxide as a hypo eliminator. This strength was most commonly used in the past and is comparatively safe. However, with increased uses developing for hydrogen peroxide, chemical manufacturers are providing more and more 30-percent solutions. The 30-percent solution is very dangerous both from a fire hazard standpoint and because of its corrosive action on the skin and eyes. Because they pose extreme handling problems, strengths above 30 percent should not be purchased or used in a photographic laboratory or in the chemical control laboratories listed in the appendixes to this document.

Class III, Compounds with Allergenic Properties

P-Phyenylenediamine, Derivatives and Relative Compounds, and Eastman Kodak Co. DK-2, CD-3, Dicolamine S-3 and S-3

Aminophenols, Amines and Other Organic Compounds

P-Methylamino Phenol Sulfate (Metol Elon, Pictol, etc.)
Benzyl Alcohol
6-Nitrobenzimidazole Nitrate
Ethylenediamine Sulfate
Hydroquinone
Pryrogallol
Borons

Inorganic Salts

Aluminum Potassium Sulfate (Potassium Alum)
Chromium Potassium Sulfate (Chrom Alum)
Sodium Bisulfite (also Sodium Metabisulfite)
Sodium Borate (Borax) (also Metaborate)
Sodium Carbonate
Potassium Ferricyanide
Sodium Hexametaphosphate (Calgon, Quadrafos)
Sodium Phosphate (Dibasic and tribasic)
Sodium Sulfate
Sodium Sulfite
Sodium Thiocyanate (Sulfocyanate)
Sodium Thiosulfate (Hypo)

These compounds are the allergy producers. Each has been known to cause adverse reactions in some people; most irritate all people.

Class IV, Solvents

Carbon Tetrachloride Solvents and Film Cleaners

It is well recognized that carbon tetrachloride is the best solution for film cleaning. Due to its highly toxic nature, most laboratories forbid its use. Although there is no comparable substitute, equipment can be designed to handle carbon tetrachloride safely and its use should be permitted under such conditions. It appears that such equipment modifications are attempted only as a last resort. Therefore, more time and money is spent attempting to circumvent the safety regulations than is spent procuring the proper equipment.

To provide an even greater margin of safety, a less toxic material can be used with this equipment. However, one must be very cautious when selecting a safer solution by making certain that it is really safer and not merely a convenient substitute.

Tetrachloroethylene is considered the safest of the chlorinated hydrocarbon solvents. Care must be taken that it is not confused with tetrachloroETHANE which is the most toxic compound of this series. Wherever possible, substitute tetrachloroethylene for other chlorinated solvents. Even this solution, however, is not totally safe; deaths have resulted from its use.

DuPont is offering "Freon-113" trifluorotrichloroethane, as a good substitute for carbon tetrachloride solvents used in motion picture film processing. Even though the "freon" class of compounds is generally much less toxic than the chlorinated hydrocarbons, there are limitations to its use. Since prolonged breathing of such vapors should be avoided, freon compounds are not recommended for use in unventilated workrooms for long periods of time even in low concentrations. Facilities for adequate ventilation must be provided, especially when the local vapor concentration is high. As with other toxic chemicals, it is necessary to wear rubber or neoprene gloves or provide other protection for the hands when exposed to liquid Freon-113 or other freon compounds for any extended period.

Another type of solvent regarded as "laboratory safe" is the CF-2 solvent used in ultrasonic cleaning. This formula minus a lubricant, is alpha trichloroethane -- a chlorinated hydrocarbon that must be handled with care. Since this material is formulated to be used in special equipment, handling problems have been minimized. Adequate ventilation is still essential, especially if vapor recovery is attempted.

Also under the heading of solvents are materials other than cleaners. Included are such film splicing cements as "cronar" polyester cements and triacetate splicing cements. The "cronar" cements are composed of fluorinated hydrocarbons -- the basic ingredient being hexafluoroisopropanol.

Inhaling these vapors (as little as a sniff) is highly dangerous and adequate ventilation is a must. The volatile vapors of the cellulose triacetate splicing cements are also to be avoided because they are equally as toxic.

Because flammable and hazardous solvents may be used in color processing, the proper methods of control should be reviewed by all concerned. Flammable solvents must be kept in approved self-closing metal containers away from sources of ignition. Containers should be grounded to prevent ignition of vapors from any static discharges generated by the operator. To do this, attach a grounded wire to the handle or other convenient part of the container by means of a battery clip. Smoking should not be permitted in areas where such solvents are used, and no open flames or any apparatus which generates sparks should be allowed in these areas.

Some other solvents such as ethylene chloride or chloroform are toxic when inhaled. Ethylene chloride can also cause severe skin burns if clothing contaminated with it touches the skin. Another solvent, benzyl alcohol, is a skin and eye irritant. Although irritant properties of formaldehyde are well known, be aware that breathing the vapor from formaldehyde solutions can also cause eye, nose and throat irritations. Thus, it is important to provide forced air ventilation over tanks containing such solutions.

The principles governing the safe handling of solvents are much the same as those mentioned earlier for acids and alkalis. These include providing for well-ventilated storage and mixroom areas, avoiding pipetting by mouth, using hoods and closed containers for volatile materials, and providing rubber gloves, goggles and proper respirators where necessary. Lacquering and film cleaning must also be done in enclosed machines or in properly ventilated areas.

Adequate fire protection must be provided where solvents are used. The precautions to be taken against fire and explosion in the handling of solvents are well outlined in the handbook and various pamphlets of the National Fire Protection Association (NFPA). Of special importance is the NFPA pamphlet 30-L, which contains a number of valuable suggestions. This literature may be obtained from the National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts 02110.

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Appendix A

EASTMAN KODAK SAFE HANDLING CONSIDERATIONS

KODAK

INDEX FOR SAFE HANDLING CONSIDERATIONS

	Page
C-22 Process	A-3
D-76 Developer	A-5
Dektol Developer	A-6
Process E-4	A-7
E-4 and Related Color Developing Processes	A-9
Ektachrome E-6 Process	A-11
Ektamatic A-10 Activator and Ektamatic S-40 Stabilizer	A-12
Ektaprint 2 Process	A-13
Ektaprint 3 Process	A-15
Ektaprint R-500 Process	A-16
Flexicolor (C-41) Process	A-18
Indicator Stop Bath	A-20
Prehardener Solutions (Safety Precautions When Preparing)	A-21
Rapid Fixer	A-23
Royalprint Process	A-24
Ventilation Recommendations for Photographic Processing	A-25
Material Safety Data Sheets	A-27

July 1978

THE SAFE HANDLING OF THE *KODAK C-22* PROCESS

The *Kodak C-22* Process is used for the processing of color film. It is a multiple bath process in which the film is transferred either manually or mechanically from one bath to another.

As with all photographic processing, the primary health concern is for the occurrence of skin irritation and/or skin sensitization secondary to direct contact with the chemicals. It is the developer mixture which presents the major potential for such problems.

The following information relates to the chemicals and baths employed in this process.

Kodak Hardener and *Kodak* Hardener & Replenisher, Process *C-22* is furnished in two parts. Part A has several inorganic salts and is not considered to be a hazard, while Part B contains formaldehyde. Adequate handling procedures to prevent skin contact should be used. Control of aldehyde vapors from the hardener tank should be directed toward maintaining aldehyde concentrations in the workroom air at a level approaching 1 ppm.

Kodak Liquid Developer, Process *C-22*, is a two-part formulation. Part A consists of an aqueous solution of an alcohol, wetting agents, and the color developer agent CD-3 which is a derivative of p-phenylenediamine. This color developer agent may cause skin irritation and skin sensitization on prolonged or repeated direct contact with the solution and such contact should be avoided. This solution may release sulfur dioxide vapors during mixing operations. For this reason, such activities should be closely controlled in a well-ventilated area. Part B is a highly alkaline aqueous solution having a pH of approximately 14.0. Such solutions present recognized hazards for accidental skin or eye contact which may result in irritation and/or burns, and such contact should be prevented. In case of contact, the area should be immediately flushed with plenty of water and medical attention should be obtained.

Kodak Bleach, Process *C-22*, is a ferricyanide bleach of the type which has had wide usage for many years. We do not feel that it presents hazards for the intended application.

Kodak Stop Bath, Process *C-22*, is a two-part formulation. Part A contains sodium metabisulfite, an inorganic salt of low hazard to health, while Part B contains glacial acetic acid. It is capable of causing burns of the skin or eyes on direct contact. Mixing operations should be carried out under good ventilation in order to minimize eye and upper respiratory tract irritaton. All direct contact with the liquid Part B must be avoided.

Kodak Fixer, Process *C-22*, contains such commonly employed photographic chemicals as hypo and balancing inorganic salts. We do not feel that it presents hazards for the intended application.

Attention to details of personal cleanliness and work area housekeeping can materially reduce the potential for skin difficulties secondary to work with the *Kodak C-22* Process. The regular use of nonalkaline hand cleaners and the use of protective equipment such as impervious gloves and eye protection, where indicated, should be seriously considered by persons working with these chemicals. Good general ventilation and local ventilation, where needed, are also important factors in making for a safe and healthful workplace.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

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THE SAFE HANDLING OF *KODAK D-76* DEVELOPER

Kodak D-76 Developer is a two-part photographic mixture intended for the development of black and white film. This developer system is designed to give full emulsion speed and maximum shadow detail with normal contrast, moderately fine grain and excellent development latitude. Also, it gives low fog on forced development with various black and white films.

Kodak D-76 Developer, Part A, contains the black and white developer agents hydroquinone and Elon (p-methylaminophenol sulfate). Part B contains inorganic buffering salts. Both parts A and B are packaged as dry chemicals and when mixed in water to make the working solution, the resultant solution is alkaline, with a pH of approximately 9.0.

In handling large quantities of the dry chemicals, dust can be generated that can cause irritation of the upper respiratory tract. Direct eye contact with the powder can also cause irritation. Immediate flushing of the eye with plenty of water and additional medical attention is advised. Prolonged or repeated skin contact with the powdered chemicals of part A or the working solution can produce skin irritation. In some rare instances, repeated skin contact may result in an allergenic skin reaction. It has been our experience that skin irritation can be minimized by the use of a nonalkaline (acid) hand cleaner on accidental skin contact and routinely throughout the day.

Chemical mix room and darkroom spills should be cleaned up so as to prevent contact with the chemicals. The use of impervious gloves during clean-up, mixing and handling operations is necessary. If dusting occurs due to inadequate ventilation during large volume mixing of the dry chemicals, one must use an approved dust respirator.

Health, Safety, and Human Factors Laboratory
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THE SAFE HANDLING OF *KODAK DEKTOL* DEVELOPER

Kodak Dektol Developer is a black and white photographic developing mixture intended for the development of cold-tone papers. It has a uniform development rate, high capacity and good keeping characteristics.

Kodak Dektol Developer consists basically of the black and white developer agents hydroquinone and Elon (p-methylaminophenol sulfate) together with buffers and an inorganic carbonate. For the consumer market, it is packaged as a single powder formula. For commercial use, it is packaged in two parts. Part A contains the developer agents while part B is the buffer component. The dry chemicals are dissolved in water to make up the working solution. The pH of the working solution is approximately 10.3.

Dust that may be generated by the handling of large volumes of *Kodak Dektol* Developer powder can cause irritation of the nose and upper respiratory passages and direct eye contact with the powder can cause irritation of the eye. Due to the alkaline nature of this mixture, any appreciable eye contact with the powdered chemicals calls for immediate flushing with plenty of water and further medical attention. Repeated skin contact with the powdered chemicals or with the solution can cause skin irritation. Repeated skin contact may result in an allergic skin reaction in some individuals. However, this response is comparatively rare.

Chemical mix operations and darkroom cleanup procedures should be carried out so as to prevent direct contact with the dry chemicals or with the solution. Impervious gloves should be used on these occasions. An approved dust respirator should be used for dust control if inadequate ventilation is provided.

If accidental contact should occur, the areas of contact should be washed thoroughly with plenty of water and a nonalkaline (acid) hand cleaner should be used. In the event of eye contact, the eye should be flushed thoroughly with water and medical attention should be obtained.

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KODAK PROCESS E-4

The Kodak Process E-4 is comprised of a variety of individual components.

Pre-Hardener and Pre-Hardener Replenisher, Process E-4

The Pre-Hardener and Pre-Hardener Replenisher, Process E-4, consists of two parts in which Part B contains formaldehyde. Measures should be used for control of aldehyde vapors during processing and for prevention of direct skin contact with the concentrate and with the use solution.

First Developer and First Developer Replenisher, Process E-4

The First Developer and First Developer Replenisher, Process E-4, are two-part formulations which go to make up a rather typical black and white photographic developer mixture. Part A contains black and white photographic developer chemicals. These present hazards for prolonged or repeated direct contact with the skin.

Stop Bath, Process E-4

Kodak Stop Bath, Process E-4, depends for its action upon the presence of acetic acid. Handling of the concentrate will require avoidance of contact with the skin. Process ventilation may be desired for vapor control.

Color Developer and Color Developer Replenisher, Process E-4

Kodak Color Developer, Process E-4, and the Color Developer Replenisher consist of four parts. Part A is an alkaline aqueous solution containing an alcohol, an organic amine, wetting agents and inorganic salts. Part B consists of tertiary-butylamine borane which is provided either in pellet form or as a pre-weighed quantity of powder. This compound is considered to be highly toxic and should be handled with suitable precautions to insure against contact with the skin or any accidental ingestion of the chemical or the solution. Part C consists of a combination of wetting agents and Part D contains the color developer CD-3. Such color developer chemicals are skin irritants and potential skin sensitizers. Safe handling requirements include avoidance of contact with the skin.

Bleach and Replenisher, Process E-4

Kodak Bleach and Replenisher, Process E-4, is a two-part formulation. It is based upon the action of ferricyanide and hypo in aqueous solution with buffering salts. We feel that this type of bleach presents a very low hazard for the intended application.

Neutralizer and Replenisher, Process E-4

Kodak Neutralizer and Replenisher, Process E-4, consists of a two-part formulation of which Part A is an aqueous solution of buffering inorganic salts while Part B consists of a mixture of salts. This mixture is somewhat irritating to the skin and should be handled so as to avoid contact with the skin or inhalation of the dust.

Fixer and Replenisher, Process E-4

Kodak Fixer and Replenisher, Process E-4, is a standard photographic fixer formulation, depending primarily on the action of hypo in a buffered mixture.

Stabilizer, Process E-4

Kodak Stabilizer, Process E-4, contains formalin. The safe handling of this mixture should be directed towards avoidance of contact with the skin and avoidance of inhalation of the vapor.

SAFE HANDLING CONSIDERATIONS FOR THE *E-4* AND RELATED COLOR DEVELOPING PROCESSES

In handling any photographic processing chemicals and solutions, it is important that the operator be thoroughly familiar with the safe handling precautions given on the product labels and in instruction sheets packaged with the chemicals. For those photographic processing solutions and chemicals which may cause skin and eye irritation, skin contact should be avoided and eye protection should be used at all times when mixing or handling the chemicals or the solutions.

The chemical reversal agent used with the E-4 type of process is known to be toxic when given orally to experimental animals and appears to be capable of penetrating the intact skin. For this reason, the safe handling of this compound requires prevention of direct contact with the solid chemical and with the solution. There is nothing particularly difficult about handling this compound as long as one understands why the precautions are necessary.

The prehardener and post-hardener solutions contain aldehydes which give off irritating vapors. These vapors are extremely unpleasant at even low concentrations in air. For comfort and general workroom conditions, the concentrations of these vapors should be minimized by ventilation control.

General room ventilation should consist of at least ten air changes per hour. This is considered adequate for the workroom. In addition, local exhaust should be provided for certain processing, holding and mix tanks. The local fume exhaust is best provided as a slot-type of exhaust located at the far edge of the tank. This type is superior to a canopy exhaust or the frequently utilized "elephant trunk". The slot should exhaust 100 cfm/ft^2 of tank surface which will usually provide a control velocity of about 50-75 ft/min. over the surface of the tank away from the breathing zone of the operator. Various factors will influence the effectiveness of the exhaust so that each system should be carefully checked after installation to be sure that it is working properly. The exhausted air from the local fume exhaust should be directed outside of the building and should not be recirculated. All processing solutions which give off aldehyde vapors, acid vapors such as from acetic acid baths, and breakdown products such as sulfur dioxide over fix and stop baths require local fume exhaust. Attention must also be given to ventilation requirements in chemical mix areas. Tank covers and local fume exhaust should be utilized to supplement to general room ventilation in these areas.

An understanding of the factors involved and proper planning prior to institution of these processes is important. Each individual working with these processes should be thoroughly familiar with the necessary safeguards and should realize that it is his own responsibility to see that he follows approved procedures.

Health, Safety, and Human Factors Laboratory
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SAFE HANDLING CONSIDERATIONS FOR THE

KODAK EKTACHROME E-6 PROCESS

The primary health hazard presented by the Kodak Ektachrome E-6 Process is for the production of skin irritation. The Reversal Bath, the Conditioner and Replenisher Bath, the First Developer Bath, and the Color Developer Bath all contain photographic processing chemicals which have long been recognized as skin irritants. In addition, the First Developer and the Color Developer contain agents which are known to be potential skin sensitizers. It is because of this that unnecessary direct skin contact with these solutions should be observed.

The Color Developer requires special mention. As packaged, Part A is a highly alkaline solution having a pH of greater than 13.0. Direct skin or eye contact with the solution may cause burns. The Part B Concentrate, as packaged, is an acidic solution having a pH of less than 1.5. As packaged, the solution evolves sulfur dioxide when the package is opened. On intermixing Parts A and B, the evolution of sulfur dioxide ceases and no longer presents a handling problem. Because of the evolution of this gas, mixing operations should be provided with local exhaust ventilation.

The Color Developer Starter and the First Developer Starter both contain acetic acid. The odor of this organic acid is readily identifiable over the surface of the solutions. These are acidic solutions having pH values of approximately 1.7. Direct contact with the skin or eyes causes irritation.

The Stabilizer Bath contains formaldehyde and methanol. The vapors are irritating to the eyes and upper respiratory tract. This bath should be provided with local exhaust ventilation. Direct skin contact with the solution should be prevented as skin irritation and in some instances, skin sensitization may occur.

The Fixer, the Bleach, Bleach Starter, and Bleach Replenisher Baths and the Defoamer present relatively low hazards to health. No special handling precautions appear required. If a film lubricant is used at the end of the dryer, the organic solvents should be vented properly.

Attention should be directed to the prevention of unnecessary direct skin contact with the solutions used in the Kodak Ektachrome E-6 Process. The provision of good general ventilation in the work area together with local exhaust ventilation in the areas of the Stabilizer Bath and the chemical mix area should adequately control inhalation hazards presented by this process. Ten air turnovers per hour in the machine room should suffice.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
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SAFE HANDLING CONSIDERATIONS FOR

KODAK EKTAMATIC A-10 ACTIVATOR

AND

KODAK EKTAMATIC S-40 STABILIZER

Kodak Ektamatic A-10 Activator is an aqueous solution of inorganic alkali (5-10% potassium hydroxide) and balancing salts having a pH of greater than 13.0. This highly alkaline solution is capable of causing severe skin and eye burns on direct contact. For this reason, skin and eye protection should be used at all times when handling the solution.

Kodak Ektamatic S-40 Stabilizer is an aqueous solution containing ammonium hypo and a small amount of acetic acid. It has a pH of approximately 3.0. There is a relatively low health hazard presented by this solution. As with any chemicals, avoidance of contact is advised.

During processing with the Ektamatic system, there is a small amount of activator solution retained in the paper and on contact with the stabilizer, it liberates very low concentrations of ammonia. The ammonia concentrations are well-below accepted health limits. We suggest that adequate general room ventilation be provided with this system. These two solutions should not be intermixed before or during disposal.

It has been found that when the activator solution contacts aluminum (aluminum foil, aluminum bench tops, etc) it releases a mist that is extremely irritating to the respiratory tract. Where desired, bench tops should be protected by rubber or plastic sheeting.

Health, Safety, and Human Factors Laboratory
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Rochester, New York

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SAFE HANDLING CONSIDERATIONS FOR

THE *KODAK EKTAPRINT 2* PROCESS

The *Kodak Ektaprint 2* Process is designed for the two-solution processing of *Kodak Ektacolor 37 RC* Paper. The chemicals are supplied in packaged form and consist of *Kodak Ektaprint 2* Developer, *Kodak Ektaprint 2* Developer Replenisher, *Kodak Ektaprint 2* Developer Starter, *Kodak Ektaprint 2* Bleach-Fix Replenisher and *Kodak Ektaprint 2* Bleach-Fix Regenerator.

Kodak Ektaprint 2 Developer and *Kodak Ektaprint 2* Developer Replenisher are similar in their formulation and the same health hazard information applies to both. The Developer and Developer Replenisher are composed of four parts. Part A consists of an aqueous benzyl alcohol solution and wetting agents. The vapors of benzyl alcohol are disagreeable and may be irritating to the eyes and upper respiratory tract. Adequate ventilation is required when mixing and handling the solution. Prolonged or repeated skin contact with the solution causes irritation. Protective gloves and eye protection are necessary when working with the solution. Part B consists of an aqueous solution which contains hydroxylamine sulfate. The pH of the concentrate is approximately 3.0. Hydroxylamine sulfate is a skin irritant and may be a potential skin sensitizer. Avoid skin and eye contact with the solution. Part C contains the color developer agent CD-3 in an aqueous solution. The concentrate has a pH of approximately 1.0. CD-3 is a derivative of p-phenylenediamine and is a known skin irritant and potential skin sensitizer. Prolonged or repeated skin contact with the concentrate or the working solution may result in dermatitis. The concentrate liberates sulfur dioxide which may be irritating to the upper respiratory tract. Adequate ventilation is required when mixing this part. The liberation of sulfur dioxide gas ceases after addition of Part C to the developer mixture. Eye contact with the concentrate solution can cause irritation. Skin and eye protection is needed when handling the solution. Part D contains an aqueous mixture of potassium carbonate. It has a pH of approximately 13.0 and presents considerable hazard for contact with the skin or eyes. Direct eye contact can cause burns. Skin contact causes irritation and/or burns. Personal protective equipment such as impervious gloves and eye goggles or a face shield should be worn to prevent skin and eye contact.

Kodak Ektaprint 2 Developer Starter is an aqueous solution of inorganic and organic salts with a pH of approximately 10.0. It is considered to be of a low hazard to health.

Kodak Ektaprint 2 Bleach-Fix Replenisher, Part A and Part B and *Kodak Ektaprint 2* Bleach-Fix Regenerator present a relatively low hazard to health. Part A of the Bleach-Fix Replenisher is an aqueous solution of ammonium hypo with a pH of approximately 5.2. The Bleach-Fix Regenerator and Part B of the Bleach-Fix Replenisher contain an aqueous solution of ammonia at 3-5% concentration, which is less than that found in ordinary household ammonia. The pH of these concentrates is approximately 7.0.

The concentration of ammonia vapor that may be present during processing depends upon the quantity of processing being carried out, the temperature of the solution, and the ventilation of the area. The ammonia vapor from the concentrate or during processing may cause upper respiratory tract irritation and eye irritation. The provision of good general room ventilation and local exhaust ventilation in the area of mixing and processing tanks should be adequate for the control of the vapor.

The safe handling of these photographic chemicals should primarily be directed toward avoiding direct contact with the skin or eyes. In addition, good general room ventilation and local exhaust ventilation in mixing rooms and processing areas should be considered for the control of irritating and disagreeable odors.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

August 1977

SAFE HANDLING CONSIDERATIONS FOR THE *EKTAPRINT 3* PROCESS

The *Kodak Ektaprint 3* Process is a three-step operation for the processing of *Kodak Ektacolor 37 RC* Papers. The chemical solutions that are used for processing are *Kodak Ektaprint 3* Developer, *Kodak Ektaprint 3* Developer Replenisher, *Kodak Ektaprint 3* Stabilizer and Replenisher, *Kodak Ektaprint 3* Bleach-Fix and Replenisher, and *Kodak Ektaprint 3* Bleach-Fix Regenerator.

Kodak Ektaprint 3 Developer is a three-part formulation. Part A consists of an aqueous solution which contains hydroxlamine sulfate and benzyl alcohol. Hydroxylamine sulfate is a skin irritant and potential skin sensitizer. Benzyl alcohol possesses a somewhat disagreeable odor and may be irritating on contact with the skin. Part B is a very alkaline solution containing potassium carbonate. This solution has a pH of approximately 12.0 and can cause burns on direct contact with the skin or eyes. Part C contains the color developer agent CD-3 in an aqueous solution. This color developer agent is a derivative of p-phenylenediamine and is a known skin irritant and potential skin sensitizer. Prolonged or repeated skin contact with CD-3 or its solutions may result in dermatitis. The liberation of sulfur dioxide gas occurs with this concentrate but ceases when the concentrate is added to the developer mix. When *Kodak Ektaprint 3* Developer is prepared for use, the working solution has a pH of approximately 10.0 which is well below the degree of alkalinity that will produce tissue injury.

Kodak Ektaprint 3 Developer Replenisher is essentially similar to and presents the same hazards as *Kodak Ektaprint 3* Developer.

Kodak Ektaprint 3 Stabilizer and Replenisher contains acetic acid. The concentration of acetic acid, as packaged, is less than 16% and may cause skin or eye irritation. When diluted with water to make the working solution, the concentration of acetic acid approaches that of ordinary household vinegar. Although the vapors may be somewhat irritating to the eyes and upper respiratory tract, this product presents a relatively low handling hazard.

Kodak Ektaprint 3 Bleach-Fix and Replenisher consists basically of an aqueous solution of ammonia, photographic hypo and water. The concentration of ammonia is approximately that found in ordinary household ammonia. The ammonia vapors may cause upper respiratory tract irritation as well as some eye irritation. When diluted with water for the working solution, it presents a low hazard to health.

Kodak Ektaprint 3 Bleach-Fix Regenerator presents the same hazards as *Kodak Ektaprint 3* Bleach-Fix and Replenisher.

The safe handling of these photographic processing chemicals should primarily be directed toward the prevention of direct contact with the skin or eyes. Local exhaust ventilation in darkrooms, mixing rooms and other processing areas should be considered for the control of irritating and disagreeable odors.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

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SAFE HANDLING CONSIDERATIONS FOR THE

KODAK EKPTAPRINT R-500 PROCESS

The *Kodak Ektaprint R-500* Process is intended for the processing of *Kodak Ektachrome RC* Paper in Kodak rapid color processors. The handling hazards presented by this process are not materially different from other similar color processes. The first developer and color developer mixtures contain agents which are known to be potential skin irritants and possible skin sensitizers. The stop bath contains acetic acid, the stabilizer contains formaldehyde and the bleach-fix contains a dilute aqueous solution of ammonia.

Kodak Ektaprint R-500 First Developer is very similar to many black and white photographic developing formulations. It contains hydroquinone as the primary developer agent in an aqueous solution buffered to a pH of approximately 9.4 for the concentrate. The concentrate is diluted 1 + 3 for use and has a pH of approximately 9.5. Repeated or prolonged skin contact with the concentrate or with the working solution may result in skin irritation. Safe handling calls for avoidance of direct contact. Where accidental spills may occur and during mixing operations, personal protective equipment such as impervious gloves and face and eye protection should be used.

Kodak Ektaprint R-500 Color Developer is packaged in three parts. Part A contains benzyl alcohol which may be irritating on contact with the skin. The vapors are irritating to the upper respiratory tract. Part B is a highly alkaline aqueous solution having a pH of approximately 13.8. The safe handling of this component calls for avoidance of all skin or eye contact. In case such contact should occur, the area should be immediately flushed with copious amounts of water and for eye contact, prompt flushing should be followed by medical attention. The alkalinity is due to the presence of inorganic alkali at slightly less than 10% concentration as packaged. Part C is a strongly acid mixture with a pH of approximately 1.1. It contains the developer agent CD-3 which is a known skin irritant and potential skin sensitizer. All skin or eye contact with this mixture must be prevented. Mixing will require local exhaust ventilation to control sulfur dioxide vapors which are given off by this mixture. However, these vapors are no longer released once this part is combined with parts A and B. When parts A, B and C are appropriately diluted and combined to make the working solution, the resultant pH is approximately 10.5.

Kodak Ektaprint R-500 Stop Bath as packaged consists of an aqueous solution of acetic acid. The pH of the concentrate is approximately 3.2. This solution is capable of causing burns on contact with skin or eyes. For use, the concentrate is diluted to give a final acid concentration of approximately 2.5%. The working solution presents no handling hazards.

Kodak Ektaprint R-500 Bleach-Fix is packaged in two parts. Part A consists basically of a buffered solution of photographic hypo in water. Part B contains very dilute ammonia water and has a pH of approximately 7.1. The working solution of *Kodak Ektaprint R-500* Bleach-Fix has a pH of approximately 6.6.

Kodak Ektaprint R-500 Stabilizer contains an aqueous solution of formaldehyde at approximately 11% concentration. For use as the working solution, one volume of concentrate is diluted with 17.75 volumes of water resulting in a solution with a pH of approximately 3.5. Skin contact with the concentrate and the working solution should be prevented.

The provision of good general ventilation in the work area with particular attention to ventilation control in the chemical mix area where the color developer, stabilizer and stop bath mixtures are prepared, should control inhalation hazards presented by this process.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

May 1977

MEDICAL AND SAFE HANDLING ASPECTS

OF THE KODAK FLEXICOLOR (C-41) PROCESS

The Kodak Flexicolor chemicals for process C-41 are intended for the development of Kodacolor II film. The chemicals are packaged under the Flexicolor trade name while instructional information is provided under the designation of C-41. There is also a C-42 designation which is used in reference to instructional information provided to large volume processing houses that mix from bulk chemicals.

Kodak Flexicolor Developer is packaged in three parts. Part A is a buffering mixture of low health hazard. The concentrate has a pH of approximately 10.9 as packaged. Part B consists basically of a dilute solution of hydroxylamine sulfate in water and presents hazards for direct contact with the skin or eyes. The solution is irritating on direct contact. Repeated contact may give rise to skin sensitization to the amine component. Part C contains the color developer agent CD-4 which, as a derivative of p-phenylenediamine, is capable of producing skin irritation and skin sensitization on repeated or prolonged contact. The concentrate is acidic having a pH of approximately 2.2. As packaged, sulfur dioxide is given off by the concentrate but the release of this gas ceases as soon as part C is added to the developer mix.

Kodak Flexicolor Developer Replenisher is essentially similar to and presents the same hazards as Kodak Flexicolor Developer.

Kodak Flexicolor Developer Starter is packaged as a concentrate with a pH of approximately 9.7. It consists of a dilute aqueous solution of inorganic and organic salts and presents a low health hazard.

Kodak Flexicolor Bleach is packaged as three parts. There are some individual minor differences depending on the package size used but basically part A consists of low toxicity inorganic salts which do not present handling hazards. Part B contains glacial acetic acid and may cause burns on direct contact with the skin or eyes. Mixing operations call for local exhaust ventilation control for acetic acid vapor. Part C is a chelating component which presents a very low health hazard.

Kodak Flexicolor Bleach Replenisher which is used for the larger sizes is packaged as a two part formulation. Part A has a measured pH of approximately 2.5 and contains dilute acetic acid with inorganic salts. It presents a low health hazard. Part B contains dilute ammonia water at a concentration of approximately 5% ammonia. It presents a relatively low handling hazard.

Kodak Flexicolor Bleach Starter contains ammonia in water at a concentration of approximately 28%. The handling of this product calls for ventilation control for ammonia vapor and for avoidance of any direct contact with the skin or eyes. Such contact can result in burns. The vapor is irritating to the eyes and upper respiratory tract.

Kodak Flexicolor Bleach Regenerator is packaged as a two part formulation. Part A contains acetic acid at approximately 11% in aqueous solution. Direct contact with the skin or eyes may be expected to produce irritation. Part B contains ammonia water at approximately 5% concentration. It presents a low health hazard.

Kodak Flexicolor Fixer and Replenisher is of low health hazard. It consists primarily of an aqueous solution of ammonium thiosulfate buffered to a pH of approximately 6.5. It is not expected to present handling hazards.

Kodak Flexicolor Stabilizer and Kodak Flexicolor Stabilizer and Replenisher contain formaldehyde. This is packaged at a concentration of approximately 28% formaldehyde in water and presents hazards for vapor inhalation and skin or eye contact. The handling and mixing of the concentrate calls for protective measures to prevent skin or eye contact and the provision of exhaust ventilation for the control of formaldehyde vapor.

While certain components of the Flexicolor system call for care in handling, we feel that the Flexicolor (C-41) Process does not present unacceptable health hazards.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

October 1977

THE SAFE HANDLING OF *KODAK* INDICATOR STOP BATH

Kodak Indicator Stop Bath is a general photographic nonhardening stop bath for use with black and white films, plates or papers. It contains a chemical indicator which signals (purplish-blue) when exhaustion of the stop bath occurs.

Kodak Indicator Stop Bath, as packaged, is a concentrated acetic acid solution in water with a very small amount of a chemical indicator. The acid can cause skin or eye burns on direct contact. Skin and eye protection are needed when handling the concentrate. In case of contact, the effected areas should be flushed thoroughly with plenty of water and additional medical attention is required for eye contact. The acetic acid vapor generated from the concentrate may cause transient eye, nose and throat irritation.

When *Kodak* Indicator Stop Bath concentrate is diluted with water to make the working solution, acetic acid is present at a concentration of less than 15%. The working solution is essentially nontoxic and only mildly irritating for prolonged or repeated skin contact. During dilution of the concentrate and handling of the working solution, it is recommended that adequate ventilation be provided. This can be accomplished by good general room ventilation and/or local exhaust ventilation.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

Safety Precautions When Preparing Prehardener Solutions

Both KODAK Hardener Agent, HA-1 and succinaldehyde stock solutions are hazardous chemicals. HA-1, which is used to form succinaldehyde, is toxic. Succinaldehyde solutions are irritating to the skin and eyes as well as being allergenic. Contact by these chemicals with skin and eyes must be prevented, and prolonged breathing of their vapors must be avoided. In the event of contact with skin or eyes, the solutions must be immediately washed away with large amounts of water.

When handling HA-1, use either an exhaust hood or the following respiratory protection depending upon the convenience of the operation. Protective clothing, rubber gloves, and safety goggles must also be used. The mix and processing rooms in which the chemicals are handled must be well ventilated.

> Mask, organic vapor and acid gas, chin type with universal "clear-vue" facepiece (glass); a protective plastic cover for glass is optional.
>
> Canister --Type GMCC for organic vapors, acid, gasses, toxic dust.

The above equipment can be purchased from Mine Safety Appliances Co., 230 North Braddock Avenue, Pittsburgh, Pennslyvania 15208. There is no definite information concerning the length of time a canister can be used. Each chemical-mix man should have control of his respiratory equipment, which must be cleaned and the canister renewed periodically. Such time can be established on a trial basis, but should not exceed 3 months. Experience may indicate even a

shorter interval is necessary. In any case, the canister should be changed if the odor or any irritation from HA-1 or succinaldehyde vapors are detected while the mask is being worn.

The prehardener mix tank and the prehardener processing tank must be covered with exhaust hoods to protect the mix men and machine operators from succinaldehyde vapors.

Safety Precautions When Handling KODAK Reversal Agent, RA-1

KODAK Reversal Agent, RA-1, has a high degree of toxicity in experimental animals. While no injury is known to have occurred in humans from its use, special handling procedures are recommended. RA-1, solid or in solution, must not be allowed to come into contact with the skin, because it is readily absorbed through the skin. In the case of contact, wash the area immediately with large quantities of water. Breathing of any "dust" must be avoided.

The weighing of RA-1 and the analytical determination for RA-1 should be performed under an exhaust hood. With proper ventilation, protective clothing, rubber gloves, and safety goggles will give adequate protection. A face mask equipped with an MSA* Ultra Filter must be worn when the solid material is handled outside of an exhaust hood and if any "dust" is noticed.

RA-1, solid or in solution, slowly releases hydrogen gas. Therefore, it must be stored in polyethylene bottles, never in closed-glass containers. (Polyethylene is porous to hydrogen preventing any build-up of pressure.) RA-1 and its solutions should be stored in a cool, dry area away from any possible contact with acidic chemicals.

Mine Safety Appliance Company, 230 North Braddock Avenue, Pittsburgh, Pennsylvania 15208.

August 1977

THE SAFE HANDLING OF *KODAK* RAPID FIXER

Kodak Rapid Fixer is a general purpose black and white photographic fixing formulation which has wide application. It is used as a hardening fixer for various films, plates, and paper sensitized materials. It is packaged as two parts, solution A and solution B. These concentrates are diluted with water to make up the working solution.

Kodak Rapid Fixer solution A is composed primarily of photographic hypo (a thiosulfate salt) in aqueous solution which is buffered to a pH of approximately 4.9. The concentrate solution contains acetic acid at a concentration of approximately that found in ordinary household vinegar.

Kodak Rapid Fixer solution A presents a low hazard to health. The working solution contains approximately 2% acetic acid and less than 0.7% boric acid.

Kodak Rapid Fixer solution B consists of a dilute aqueous solution of sulfuric acid. The acid concentration, as packaged, is somewhat less than 10%, giving this concentrate a pH of less than 1.0.

Kodak Rapid Fixer solution B may cause burns on contact with the skin or eyes. In the event of such contact, the affected areas should be flushed thoroughly with plenty of water and for eye contact, additional medical attention should be obtained.

The working solution of *Kodak* Rapid Fixer should be provided with good ventilation. In poorly ventilated areas, it should be provided with local exhaust ventilation to control acetic acid vapor and small amounts of sulfur dioxide that are given off by the breakdown of bisulfite salts. Studies of sulfur dioxide generated by such baths have indicated that concentrations remain well within acceptable health levels.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

June 1978

SAFE HANDLING CONSIDERATIONS FOR THE

KODAK ROYALPRINT PROCESS

The *Kodak Royalprint* Processor machine is used for the processing of sheets of photographic paper. There are three chemical baths in this machine, an activator bath, a stop bath, and a fixer bath.

Kodak Royalprint Activator is a simple aqueous solution of dilute potassium hydroxide having a pH of approximately 14.0. The high alkalinity of this solution can result in burns of the skin or eye in case of accidental contact. However, the only volatile component from this mixture is water. Skin or eye contact should be avoided. In case of contact, immediately flush skin or eyes with plenty of water. Obtain additional medical attention for any eye contact.

Kodak Royalprint Stop Bath solution consists simply of dilute acetic acid in water. The concentration of acetic acid in this mixture is slightly less than 20%. In case of skin or eye contact, flush immediately with water and for eye contact, obtain additional medical attention.

Kodak Royalprint Fixer is an aqueous mixture of ammonium hypo (thiosulfate) with less than 2% sodium metabisulfite and a small amount of acetic acid. Such fixer baths present a very low hazard to health.

The primary vapor from this process is water vapor. The only other ingredient that is emitted by this process is the vapor of acetic acid. This acid is present in both the stop bath and fixer. The vapors of acetic acid are irritating to the eyes and upper respiratory tract at concentrations in excess of 10 ppm. However, these vapors do not present a hazard to health as acetic acid is metabolized within the body.

The primary source of acetic acid vapor would be from the damp paper which emerges for wet inspection after passing through the stop bath. The roller section is provided with a set of squeegee rollers which remove most of the stop bath from the paper but the odor of acetic acid is certainly discernible during this inspection phase. However, our observations have led us to feel that when this equipment is installed in a reasonably well ventilated area and is equipped with the appropriate exhaust connection, the concentration of acetic acid likely to be present in the workplace remains well within the accepted threshold limit value.

Because of moisture and heat generated in the drying section, the machine is ventilated by means of a duct to the outside. This successfully removes vapors built up within the machine as well as disperses heat and moisture.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

February 1978

VENTILATION RECOMMENDATIONS FOR PHOTOGRAPHIC PROCESSING

Some photographic processing solutions contain chemicals such as acetic acid, benzyl alcohol and aldehydes which liberate irritating vapors. Some of these vapors are unpleasant even at low concentrations in air. For comfort and general workroom conditions, the concentrations of these vapors should be minimized by ventilation control.

In our experience, we have found that good general room ventilation should consist of at least ten air changes per hour in the workroom. In addition, local exhaust should be provided for certain processing, holding and mix tanks. The local fume exhaust is best provided as a slot-type of exhaust located at the far edge of the tank. This type is superior to a canopy exhaust or the frequently used "elephant trunk". The slot should exhaust 100 cfm/ft^2 of tank surface which will usually provide a control velocity of about 50-75 ft/min over the surface of the tank away from the breathing zone of the operator. Various factors will influence the effectiveness of the exhaust so that each system should be carefully checked after installation to be sure that it is working properly. The exhausted air from the local fume exhaust should be directed outside of the building and should not be recirculated. All processing solutions which give off aldehyde vapors or acid vapors, such as from acetic acid baths, require local fume exhaust. Attention must also be given to ventilation requirements in chemical mix areas. Tank covers and local fume exhaust should be used to supplement the general room ventilation in these areas.

An understanding of the factors involved and proper planning prior to institution of these processes is important. Individuals working with these processes should be made thoroughly familiar with the necessary safeguards.

Health, Safety, and Human Factors Laboratory
Eastman Kodak Company
Rochester, New York

EASTMAN KODAK COMPANY

MATERIAL SAFETY DATA SHEET INDEX

Reference Number	Product Name	Page
C-97	Microfilm Developer Replenisher	A-33
C-146a	Versaflo Developer Replenisher, Part A	A-35
C-147a	Versaflo Developer Replenisher, Part B	A-37
C-148a	Versaflo Developer Replenisher, Part C	A-39
C-164b	Versamat 885 Developer Replenisher, Part A	A-41
C-164.1	Versamat 885 Developer Replenisher, Part A	A-43
C-165a	Versamat 885 Developer Replenisher, Part B	A-45
C-165.1	Versamat 885 Developer Replenisher, Part B	A-47
C-165.20	Versamat 885 Developer Replenisher, Part C Improved	A-49
C-166	Versamat 885 Developer Starter	A-51
D-14a	Microfilm Fixer and Replenisher	A-53
D-35a	Versamat 885 Fixer and Replenisher, Part A	A-55
D-36	Versamat 885 Fixer and Replenisher, Part B	A-57
F-63a	Developer Systems Cleaner (Powder)	A-59
F-81	Fixer System Cleaner (Powder)	A-61
F-81.20	Fixer/Wash System Cleaner	A-63
F-93a	Liquid Developer Systems Cleaner	A-65
L-14.50	Ektaprint R-5/R-100 Stop Bath & Replenisher	A-67
L-24	Ektaprint R-100 Bleach-Fix Regenerator, Part A	A-69
L-24.01	Ektaprint R-100 Bleach Fix Regenerator, Part B	A-71
L-25	Ektaprint R-100 Bleach-Fix Replenisher, Part A	A-73
L-26	Ektaprint R-100 Bleach-Fix Replenisher, Part B	A-75
L-27	Ektaprint R-100 Bleach-Fix and Replenisher, Part C	A-77
L-28a	Ektaprint R-100 Color Developer and Replenisher, Part A	A-79
L-29	Ektaprint R-100 Color Developer and Replenisher, Part B	A-81
L-30	Ektaprint R-100 Color Developer and Replenisher, Part C	A-83
L-31	Ektaprint R-100 First Developer Replenisher	A-85
L-31.10	Ektaprint R-100 First Developer Replenisher	A-87
L-32	Ektaprint R-100 First Developer Starter	A-89
L-33a	Ektaprint R-100 Stabilizer and Replenisher	A-91

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Reference Number	Product Name	Page
N-1	Bleach, Process E-6, Part A	A-93
N-1.5a	Bleach, Process E-6, Part A	A-95
N-2	Bleach, Process E-6, Part B	A-97
N-2.5a	Bleach, Process E-6, Part B	A-99
N-4	Bleach Starter, Process E-6	A-101
N-5	Color Developer, Process E-6, Part A	A-103
N-6	Color Developer, Process E-6, Part B	A-105
N-7	Color Developer Replenisher, Process E-6, Part A	A-107
N-8	Color Developer Replenisher, Process E-6, Part B	A-109
N-9	Color Developer Starter, Process E-6	A-111
N-10	Conditioner, Process E-6	A-113
N-11	Conditioner and Replenisher, Process E-6	A-115
N-11.9	Defoamer, Process E-6	A-117
N-12	Defoamer, Process E-6	A-119
N-12.2	E-6 Transparency Retouching Dye (Cyan)	A-121
N-12.3	E-6 Transparency Retouching Dye (Yellow)	A-123
N-12.4	E-6 Transparency Retouching Dye (Magenta)	A-125
N-12.5	E-6 Retouching Dye Buffer	A-127
N-13a	First Developer, Process E-6	A-129
N-14a	First Developer Replenisher, Process E-6	A-131
N-15	First Developer Starter, Process E-6	A-133
N-16a	Fixer, Process E-6	A-135
N-17a	Fixer and Replenisher, Process E-6	A-137
N-18a	Fixer and Replenisher, Process E-6	A-139
N-19	Reversal Bath, Process E-6	A-141
N-20	Reversal Bath and Replenisher, Process E-6	A-143
N-21a	Reversal Bath and Replenisher, Process E-6	A-145
N-22	Stabilizer, Process E-6	A-147
N-23	Stabilizer, Process E-6	A-149
N-24	Stabilizer, Process E-6	A-151
N-25	Stabilizer and Replenisher, Process E-6	A-153
N-26	Stabilizer and Replenisher, Process E-6	A-155
N-27b	Bleach Replenisher, Process E-6AR	A-157

Reference Number	Product Name	Page
N-28a	Color Developer Replenisher, Process E-6AR, Part A	A-159
N-29a	Color Developer Replenisher, Process E-6AR, Part B	A-161
N-30	Conditioner and Replenisher, Process E-6AR	A-163
N-31a	First Developer Replenisher, Process E-6AR	A-165
N-32a	Fixer and Replenisher, Process E-6AR	A-167
N-33a	Reversal Bath and Replenisher, Process E-6AR	A-169
N-34	Stabilizer and Replenisher, Process E-6AR	A-171
P-12a	Liquid Developer, Process C-22, Part A	A-173
P-13a	Liquid Developer, Process C-22, Part B	A-175
P-14a	Liquid Developer Replenisher, Process C-22, Part A	A-177
P-15	Liquid Developer Replenisher, Process C-22, Part B	A-179
P-16	Liquid Developer Replenisher, Process C-22, Part B	A-181
P-17	Liquid Developer Replenisher, Process C-22, Part B	A-183
P-18	Liquid Developer Replenisher, Process C-22, Part B	A-185
Q-1	Flexicolor Bleach, Part A	A-187
Q-2	Flexicolor Bleach, Part A	A-189
Q-3	Flexicolor Bleach, Part B	A-191
Q-4a	Flexicolor Bleach, C-41, Part B	A-193
Q-5	Flexicolor Bleach, Part C	A-195
Q-6	Flexicolor Bleach, Part C	A-197
Q-7	Flexicolor Bleach Regenerator, Part A	A-199
Q-8	Flexicolor Bleach Regenerator, Part A	A-201
Q-9	Flexicolor Bleach Regenerator, Part B	A-203
Q-10	Flexicolor Bleach Regenerator, Part B	A-205
Q-11	Flexicolor Bleach Replenisher, Part A	A-207
Q-12	Flexicolor Bleach Replenisher, Part A	A-209
Q-13	Flexicolor Bleach Replenisher, Part A-1	A-211
Q-14	Flexicolor Bleach Replenisher, Part B	A-213
Q-15	Flexicolor Bleach Replenisher, Part B	A-215
Q-16	Flexicolor Bleach Replenisher, Part C	A-217
Q-17	Flexicolor Bleach Starter	A-219
Q-17.5	Flexicolor Developer, Part A	A-221
Q-21a	Flexicolor Developer, Part B	A-223

Reference Number	Product Name	Page
Q-22a	Flexicolor Developer, Part B	A-225
Q-23	Flexicolor Developer, Part B	A-227
Q-24b	Flexicolor Developer, Part C	A-229
Q-25a	Flexicolor Developer, Part C	A-231
Q-26a	Flexicolor Developer, Part C	A-233
Q-28.20	Flexicolor Developer Replenisher, Part A	A-235
Q-28.50	Flexicolor Developer Replenisher, Part A	A-237
Q-29a	Flexicolor Developer Replenisher, Part B	A-239
Q-30	Flexicolor Developer Replenisher, Part B	A-241
Q-30.6	Flexicolor Developer Replenisher, Part B	A-243
Q-31a	Flexicolor Developer Replenisher, Part C	A-245
Q-32a	Flexicolor Developer Replenisher, Part C	A-247
Q-32.60	Flexicolor Developer Replenisher, Part C	A-249
Q-33	Flexicolor Developer Starter	A-251
Q-34	Flexicolor Fixer	A-253
Q-35	Flexicolor Fixer and Replenisher	A-255
Q-36a	Flexicolor Stabilizer	A-257
Q-37a	Flexicolor Stabilizer and Replenisher, Part A	A-259
Q-38a	Flexicolor Stabilizer and Replenisher, Part B	A-261
Q-39a	Hardener and Replenisher, C-41V Part A	A-263
Q-40	Hardener and Replenisher, Process C-41V, Part B	A-265
Q-41	Hardener and Replenisher, Process C-41V, Part C	A-267
Q-43a	Stabilizer and Replenisher, Process C-41V, Part B	A-269
Q-44	Flexicolor AR Bleach Replenisher A	A-271
Q-45	Flexicolor AR Bleach Replenisher B	A-273
Q-46	Flexicolor AR Bleach Starter	A-275
Q-47	Flexicolor AR Developer Replenisher A	A-277
Q-48	Flexicolor AR Developer Replenisher B	A-279
Q-49	Flexicolor AR Developer Replenisher C	A-281
Q-50	Flexicolor AR Fixer & Replenisher	A-283
Q-51	Flexicolor AR Stabilizer and Replenisher	A-285
T-1a	EA-5 Bleach & Replenisher, Part A	A-287
T-2b	EA-5 Bleach and Replenisher, Part B	A-289

Reference Number	Product Name	Page
T-3a	EA-5 Bleach and Replenisher, Part C	A-291
T-4a	EA-5 Bleach and Replenisher, Part D	A-293
T-5a	EA-5 Color Developer, Part A	A-295
T-6	EA-5 Color Developer, Part B	A-297
T-7	EA-5 Color Developer, Part C	A-299
T-8	EA-5 Color Developer, Part D	A-301
T-8.1b	EA-5 Color Developer Replenisher, Part A	A-303
T-9	EA-5 Color Developer Replenisher, Part B	A-305
T-10	EA-5 Color Developer Replenisher, Part C	A-307
T-11	EA-5 Color Developer Replenisher, Part D	A-309
T-12	EA-5 First Developer, Part A	A-311
T-13	EA-5 First Developer, Part B	A-313
T-14	EA-5 First Developer, Part C	A-315
T-15	EA-5 First Developer Replenisher, Part A	A-317
T-16	EA-5 First Developer Replenisher, Part B	A-319
T-16.1	EA-5 First Developer Replenisher, Part C	A-321
T-17	EA-5 First and Second Stop Bath and Replenisher	A-323
T-18	EA-5 Fixer & Replenisher, Part A	A-325
T-19	EA-5 Fixer and Replenisher, Part B	A-327
T-20	EA-5 Neutralizer and Replenisher, Part A	A-329
T-21	EA-5 Neutralizer and Replenisher, Part B	A-331
T-22a	EA-5 Prehardener & Replenisher, Part A	A-333
T-23	EA-5 Prehardener and Replenisher, Part B	A-335
T-23.1a	EA-5 Prehardener and Replenisher, Part C	A-337
T-24a	EA-5 Stabilizer and Replenisher	A-339
V-0.50	Bleach Accelerator	A-341
V-1	ME-4/ECO-3/VNF-1 Bleach and Replenisher, Part A	A-343
V-2a	ME-4/ECO-3/VNF-1 Bleach and Replenisher, Part B	A-345
V-3a	ME-4/ECO-3/VNF-1/RVNP Color Developer, Part A	A-347
V-4	ME-4/ECO-3/VNF-1 Color Developer, Part A-1	A-349
V-5a	ME-4/ECO-3/VNF-1/RVNP Color Developer, Part B	A-351
V-6a	ME-4/ECO-3/VNF-1/RVNP Color Developer, Part C	A-353
V-7a	ME-4/ECO-3/VNF-1/RVNP Color Developer, Part D	A-355

Reference Number	Product Name	Page
V-8a	ME-4/ECO-3/VNF-1 RVNP Color Developer Replenisher, Part A	A-357
V-9	ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part A-1	A-359
V-10	ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part B	A-361
V-11	ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part C	A-363
V-12	ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part D	A-365
V-13	ECO-3 Film Backing Removal Solution	A-367
V-14	ECO-3 First Developer, Part A	A-369
V-15	ECO-3 First Developer, Part B	A-371
V-16a	ME-4/VNF-1/RVNP First Developer, Part A	A-373
V-17	ME-4/VNF-1/RVNP First Developer, Part B	A-375
V-18	ECO-3 First Developer Replenisher, Part A	A-377
V-19	ECO-3 First Developer Replenisher, Part B	A-379
V-20a	ME-4/VNF-1/RVNP First Developer Replenisher, Part A	A-381
V-21a	ME-4/VNF-1/RVNP First Developer Replenisher, Part B	A-383
V-22	ME-4/ECO-3 Fixer and Replenisher	A-385
V-23a	ME-4/ECO-3/VNF-1/RVNP Liquid Fixer and Replenisher	A-387
V-24	ME-4/ECO-3 Neutralizer and Replenisher, Part A	A-389
V-25a	ME-4/ECO-3 Neutralizer and Replenisher, Part B	A-391
V-26	ME-4/ECO-3 Prehardener and Replenisher, Part A	A-393
V-27	ME-4/ECO-3 Prehardener and Replenisher, Part B	A-395
V-28a	ME-4/ECO-3 Prehardener and Replenisher, Part C	A-397
V-29a	ME-4/ECO-3/VNF-1/RVNP Stabilizer and Replenisher	A-399
V-30a	ME-4/ECO-3/VNF-1/RVNP Stop Bath and Replenisher	A-401
V-31	Color Film Liquid Fixer and Replenisher	A-403
V-32	Persulfate Bleach Accelerator PBA-1	A-405
V-33a	Stabilizer Additive	A-407
V-34	ME-4/VNF-1/RVNP Persulfate Accelerator and Replenisher, Part A	A-409
V-35	ME-4/VNF-1/RVNP Persulfate Accelerator and Replenisher, Part B	A-411
V-36a	ME-4/VNF-1/RVNP Persulfate Bleach and Replenisher, Part A	A-413
V-37	ME-4/VNF-1/RVNP Persulfate Bleach and Replenisher, Part B	A-415

C-07

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3670

SECTION I

PRODUCT NAME: KODAK Microfilm Developer Replenisher | SIZE: To make 40, 400 gals.

CHEMICAL NAME: N. A.*

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroquinone	5 - 10	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.31
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 53
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Tan color - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Microfilm Developer Replenisher

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 11

EFFECTS OF OVEREXPOSURE

Acute - None anticipated.

Chronic - Repeated skin contact may cause irritation and allergic skin reaction

EMERGENCY AND FIRST AID PROCEDURES

In case of contact, flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer. Avoid skin contact. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT

No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid skin contact

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. No. 196 8049

Reissued 11/78

C-146a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3275

SECTION I

PRODUCT NAME: KODAK VERSAFLO Developer Replenisher, Part A	SIZE: To Make 15 Gallons
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 7/11/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Hydroquinone	Less than 5	2 mg/m^3
Potassium Hydroxide	1-5	2 mg/m^3
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.36
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 72
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 14
APPEARANCE AND ODOR	Yellowish, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

EYES: Direct eye contact causes burns. SKIN: May cause skin irritation. Repeated contact with the skin may cause allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid contact with mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium bisulfate then flush with plenty of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Incinerate, landfill, follow above steps.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with mineral acids..

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimiz the possibility of allergic skin reaction.

CAT. No. 196 8049

Reissued 12/78

C-147a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3327

SECTION I

PRODUCT NAME: KODAK VERSAFLO Developer Replenisher, Part B	SIZE: To Make 15 Gallons
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 7/11/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Acetic Acid	90-95	10 ppm
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.06
VAPOR PRESSURE (mm Hg.)	Approx. 16	PERCENT VOLATILE BY VOLUME (%)	Approx. 95
VAPOR DENSITY (AIR=1)	Approx. 2.1	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 1.5
APPEARANCE AND ODOR	Dark brown, vinegar odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
131.5 F (55 C) TCC		6.67@139 F	19.9@199

EXTINGUISHING MEDIA: CO_2 or foam spray.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Vapor is irritating. EYES: Vapor is irritating. Contact with liquid causes severe burns. SKIN: Contact with liquid causes severe burns.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bicarbonate. Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Incinerate, landfill, follow above steps.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Approved organic respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS

None

CAT. No. 196 8049 Reissued 11/78

C-148a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3293

SECTION I

PRODUCT NAME:	KODAK VERSAFLO Developer Replenisher, Part C	SIZE:	To Make 15 Gallons
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	7/11/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Glutaraldehyde	20-25	0.25 (mg/m^3 C)
		**ACGIH, 1977
		(Intended Change)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.14
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 74
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.0
APPEARANCE AND ODOR	Clear, aldehyde odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

N. A. - Not Applicable

KODAK VERSAFLO Developer
Replenisher, Part C C-148a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Vapor is irritating.
EYES: Vapor is irritating. Direct eye contact causes eye burns.
SKIN: Causes skin irritation.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Neutralize with sodium bisulfite.
Flush with plenty of water to sewer.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Incinerate, landfill. Follow above steps.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Approved organic respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid contact with mineral acids.

OTHER PRECAUTIONS

None

Cat. 122 4237

C-164b

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
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MATERIAL SAFETY DATA SHEET

Kodak 11030

SECTION I

PRODUCT NAME:	KODAK VERSAMAT 885 Developer Replenisher, Part A	SIZE:	To Make 60 Litres

CHEMICAL NAME:

FORMULA: Solid Mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: 716-722-2121 | INFORMATION EFFECTIVE AS OF: 9/11/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Decomposes	SPECIFIC GRAVITY (H_2O=1)	2.64
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.*	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	White crystalline, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA N. A.

SPECIAL FIRE FIGHTING PROCEDURES None

UNUSUAL FIRE AND EXPLOSION HAZARDS None

*N. A. - Not Applicable

KODAK VERSAMAT 885 Developer
Replenisher, Part A C-164b

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
Low hazard.

EMERGENCY AND FIRST AID PROCEDURES
None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Do not store in contact with mineral acids.

OTHER PRECAUTIONS

None

C-164-1

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3522

SECTION I

PRODUCT NAME: KODAK VERSAMAT 885 Developer Replenisher, Part A	SIZE: To make 75 Liters

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-1-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium Hydroxide	12 - 17	2 mg/m^3
Hydroquinone	5 - 10	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.33
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	58%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Slightly yellow - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
N. A.	N. A.		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK VERSAMAT 885 Developer Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH greater than 14

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid causes severe burns. SKIN: Prolonged skin contact can cause severe burns. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention. SKIN: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bisulfate - added slowly then flush with water to sewer. Avoid contact with skin. State and local effluent laws take precedence. See Section VIII for protective equipment.

WASTE DISPOSAL METHOD

Sewer or incinerate. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	N. A.
	MECHANICAL (general)	No	OTHER	N. A.

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Part B of CAT. No. 122 4237

C-165a
REISSUED 4/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3522

SECTION I

PRODUCT NAME:	KODAK VERSAMAT 885 Developer Replenisher, Part B	SIZE:	To make 60 Litres

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Compsny

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 3-30-78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium Hydroxide	12 - 17	2 mg/m^3
Hydroquinone	5 - 10	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.33
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	58%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Slightly yellow - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N. A.	FLAMMABLE LIMITS	Lel	Uel
		N. A.		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES:

None

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

*N. A. - Not applicable

KODAK VERSAMAT 885 Developer Replenisher, Part B C-165a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH greater than 14

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid can cause severe burns. SKIN: Prolonged contact can cause burns. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention. SKIN: Immediately flush skin with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bisulfate - added slowly then flush with water to sewer. Avoid contact with skin. State and local effluent laws take precedence. See Section VIII for protective equipment.

WASTE DISPOSAL METHOD
Sewer or incinerate. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a nonalkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3706

SECTION I

PRODUCT NAME: KODAK VERSAMAT 885 Developer Replenisher, Part B | SIZE: To make 75 Liters

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Methylaminoethanol SO_2	25 - 30	----------
Hydroquinone	5 - 10	2 mg/m^3
1-Phenyl-3-pyrazolidinone	5 - 9	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.17
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	58%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Brown - amine odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	N. A.		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK VERSAMAT 885 Developer Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 9.5

EFFECTS OF OVEREXPOSURE INHALATION: Vapor is irritating.
EYES: Contact with the liquid may cause burns.
SKIN: Prolonged skin contact may cause irritation. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure.
EYES: Immediately flush with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid skin contact. Flush to sewer with copious amounts of water. See Section VIII for protective equipment.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water - incinerate.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved organic respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes
EYE PROTECTION: Yes
OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Part C of CAT. No. 122 4237

C-165.20
NEW 5/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3706

SECTION I

PRODUCT NAME: KODAK VERSAMAT 885 Developer Replenisher, Part C Improved	SIZE: To make 60 Litres
CHEMICAL NAME: N. A.*	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 3-30-78

SECTION II - HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Methylaminoethanol SO_2	25 - 30	----------
Hydroquinone	5 - 10	2 mg/m^3

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.17
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	58%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Brown - odorless		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		N. A.		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

KODAK VERSAMAT 885 Developer Replenisher, Part C Improved C-165.20

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 9.5

EFFECTS OF OVEREXPOSURE EYES: Contact with the liquid may cause burns. SKIN: Prolonged contact may cause burns. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention. SKIN: Immediately flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid skin contact. Flush to sewer with copious amounts of water. See Section VIII for protective equipment. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water - incinerate.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

C-166

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3463

SECTION I

PRODUCT NAME: KODAK VERSAMAT 885 Developer Starter	SIZE: To start 34 Liters
CHEMICAL NAME:	
FORMULA: Aqueous solution	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 5-10-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.35
VAPOR PRESSURE (mm Hg.)	Approx. 32	PERCENT VOLATILE BY VOLUME (%)	89%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear - acetic acid odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	Not flammable			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not applicable

KODAK VERSAMAT 885 Developer Starter

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 2.5

EFFECTS OF OVEREXPOSURE

Of low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush down sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush down sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) None

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 192 9561

Reissued 11/78

D-14a

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2844/4292

SECTION I

PRODUCT NAME: KODAK Microfilm Fixer and Replenisher	SIZE: To Make 200 Gallons
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 7/21/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.35
VAPOR PRESSURE (mm Hg.)	Approx. 18	PERCENT VOLATILE BY VOLUME (%)	44.8
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 5.5
APPEARANCE AND ODOR	Colorless; vinegar smell.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

CAT. No. 199 7873

Reissued 11/78

D-35a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3478/4237

SECTION I

PRODUCT NAME:	KODAK VERSAMAT 885 Fixer and Replenisher, Part A	SIZE:	To make 75 liters
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	9/21/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.35
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	50%
VAPOR DENSITY (AIR=1)	0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 5.00
APPEARANCE AND ODOR	Colorless - vinegar smell.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA	N. A.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low toxicity.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids and strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide and ammonia.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No **EYE PROTECTION** No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

D-36

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

Kodak 14105

SECTION I

PRODUCT NAME: KODAK VERSAMAT 885 Fixer and Replenisher, Part B	SIZE: To make 75 Liters
CHEMICAL NAME:	
FORMULA: Aqueous solution	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 6/14/76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.31
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 75%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not Applicable

KODAK VERSAMAT 885 Fixer and Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Neutralize with sodium bicarbonate. Flush with copious amounts of water.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Incinerate, landfill, or follow above steps. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 155 5929 Reissued 9/78

F-63a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

0451

SECTION I

PRODUCT NAME: KODAK Developer Systems Cleaner (Powder)	SIZE: To Make 12 Gallons
CHEMICAL NAME:	
FORMULA: Solid Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 6/28/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units) **
Sulfamic Acid	65-70	---
Potassium Dichromate	30-35	0.05 mg/m^3
		(as Cr)
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	N. A.
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	Reddish powder - odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Dust may cause irritation when handling large volumes. EYES: Direct eye contact with the powder causes burns. SKIN: May cause skin irritation and/or burns.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure.
EYES: Flush eyes immediately with plenty of water for 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid contact with moisture.

HAZARDOUS DECOMPOSITION PRODUCTS Heat.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush with copious amounts of water.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Landfill, incinerate, follow above steps.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None

OTHER PRECAUTIONS

None

F-81

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2346

SECTION I

PRODUCT NAME: KODAK Fixer System Cleaner (Powder) | SIZE: To make 2½ gals.

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 7-9-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Trisodium Phosphate	95 - 100	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Fixer System Cleaner (Powder) F-81

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust may cause irritation. EYES: Direct eye contact with the powder may cause burns. SKIN: Powder may cause irritation and/or burns during repeated or prolonged contact.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water for 15 minutes and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
UNSTABLE		
STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bisulfate then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Incinerate, landfill, follow above steps. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved dust respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

F-81.20
4093

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME	KODAK Fixer/Wash System Cleaner	SIZE	To make 2 1/2 Gallons
CHEMICAL NAME			
FORMULA	Solid mixture		
MANUFACTURER	EASTMAN KODAK COMPANY		
ADDRESS	343 STATE STREET, ROCHESTER, NEW YORK 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL	(716) 458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL	(716) 722-2121	INFORMATION EFFECTIVE AS OF	8/12/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F)	NA*	SPECIFIC GRAVITY (H$_2$O=1)	Greater than 1
VAPOR PRESSURE (mm Hg)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (=1)	NA
SOLUBILITY IN WATER	Appreciable	pH	NA
APPEARANCE AND ODOR	Odorless, colorless powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS	None	Lel / Uel
EXTINGUISHING MEDIA	NA			
SPECIAL FIRE-FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low, hazard

EMERGENCY AND FIRST-AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
	UNSTABLE	
	STABLE X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up and flush to sewer with copious amounts of water, or incinerate. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up and flush to sewer with copious amounts of water, or incinerate. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
No	No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS

None

MAT. NO. 192 2564

F-93a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

REISSUED 1/78

MATERIAL SAFETY DATA SHEET

2657

SECTION I

PRODUCT NAME: KODAK Liquid Developer Systems Cleaner | TO MAKE SIZE: 8 Gals.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-15-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Sodium Dichromate	10 - 15	0.05 mg/m^3 as Cr.
Sulfuric Acid	7 - 12	1 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.19
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	87%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Red solution, no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	Not flammable			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not applicable

KODAK Liquid Developer Systems Cleaner

F-73

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH less than 2

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid cause severe burns.
SKIN: Prolonged contact causes severe burns. Repeated contact can cause ulceration.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Immediately flush with plenty of water and get medical attention.
SKIN: Immediately flush with plenty of water. If ulceration occurs get prompt medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush down sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush down sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT
Impervious clothing and/or apron when pouring and using.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT No. 120 0062 New 12/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

L-14.50
3916

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME KODAK EKTAPRINT R-5/R-100 Stop Bath & Replenisher	SIZE To make 25 gallons
CHEMICAL NAME	
FORMULA Aqueous mixture	
MANUFACTURER EASTMAN KODAK COMPANY	
ADDRESS 343 STATE STREET, ROCHESTER, NEW YORK 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL (716) 458-1000 Ext. 55566	
FOR OTHER INFORMATION CALL (716) 722-2121	INFORMATION EFFECTIVE AS OF, 9/16/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units) **
Acetic Acid (Unreacted)	60 - 70	10 ppm
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F)	Greater than 220°F (104°C)	SPECIFIC GRAVITY (H_2O=1)	1.08
VAPOR PRESSURE (mm Hg)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 90
VAPOR DENSITY (AIR=1)	1.70	EVAPORATION RATE (=1)	NA*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.0
APPEARANCE AND ODOR	Clear, colorless solution; vinegar odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS	148-160°F	LEL 150 mg/L UEL 200 mg/L
EXTINGUISHING MEDIA	Dry chemical; carbon dioxide			
SPECIAL FIRE-FIGHTING PROCEDURES	Fresh air mask; avoid skin contact			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

® Eastman Kodak Company, 1979

*NA - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

INHALATION: Vapor very irritating to respiratory tract. EYES: Vapor very irritating to eyes.. SKIN: Liquid damaging to skin.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. EYES: In case of contact with the liquid, immediately flush with plenty of water for 15 minutes and get prompt medical attention. SKIN: Flush with water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE X	

INCOMPATIBILITY (Materials to avoid) Alkalis

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Gather and dilute in water; flush to sewer with copious amounts of water; pre-flush lines with copious water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Gather and dilute in water; flush to sewer with copious amounts of water; pre-flush lines with copious water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved acid gas respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Do not store near alkalis.

OTHER PRECAUTIONS

None

CAT. No. 127 3028

L-24
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4061

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Bleach-Fix Regenerator, Part A	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA:	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.26
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	47%
VAPOR DENSITY (AIR = 1)	0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, odorless solution		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 7.5

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 127 3028 New 12/78

L-24.01

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10001

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Bleach Fix Regenerator, Part B	SIZE: To make 25 gallons
CHEMICAL NAME:	
FORMULA: Acetic acid	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 9/16/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	245 F (118 C)	SPECIFIC GRAVITY (H_2O=1)	1.05
VAPOR PRESSURE (mm Hg.)	11.4	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	2.07	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Less than 1.5
APPEARANCE AND ODOR	Colorless liquid - strong pungent odor (vinegar-like)		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
103 F (39 C) (TCC)		5.67 at 139 F	19.9 at 199 F

EXTINGUISHING MEDIA CO_2 or spray foam

SPECIAL FIRE FIGHTING PROCEDURES: Wear supplied air mask and equipment to avoid contact (rubber gloves, boots, etc.)

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 10 ppm (ACGIH, 1977)

EFFECTS OF OVEREXPOSURE: INHALATION: Vapor causes irritation. EYES: Vapor causes irritation. Contact with liquid causes severe burns. SKIN: Contact with liquid causes severe burns.

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: Remove from exposure. EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Alkali, amines, alcohols, heat.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bicarbonate, then flush to sewer with copious amounts of water. (State and local effluent laws take precedence.

WASTE DISPOSAL METHOD: Neutralize with sodium bicarbonate, then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved organic acid vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS: None

CAT. No. 120 0005

L-25
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4078

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Bleach-Fix Replenisher, Part A	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA:	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.28
VAPOR PRESSURE (mm Hg.)	528	PERCENT VOLATILE BY VOLUME (%)	Approx. 50%
VAPOR DENSITY (AIR = 1)	Approx. 0.68	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, slightly ammoniacal odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) None		FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N A			

*N. A. - Not Applicable

KODAK EKTAPRINT R-100 Bleach-Fix Replenisher, Part A L-25

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 8.6

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong alkalis

HAZARDOUS DECOMPOSITION PRODUCTS Ammonia

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 127 5130

L-26
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3422

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Bleach-Fix Replenisher, Part B	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA:	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Opaque, red-brown, slight ammoniacal odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

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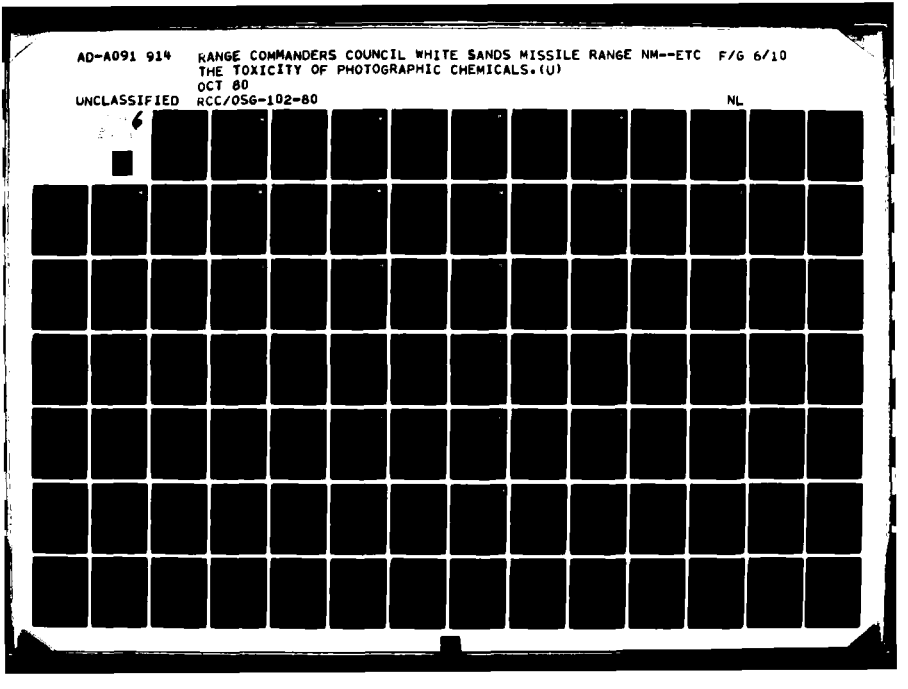

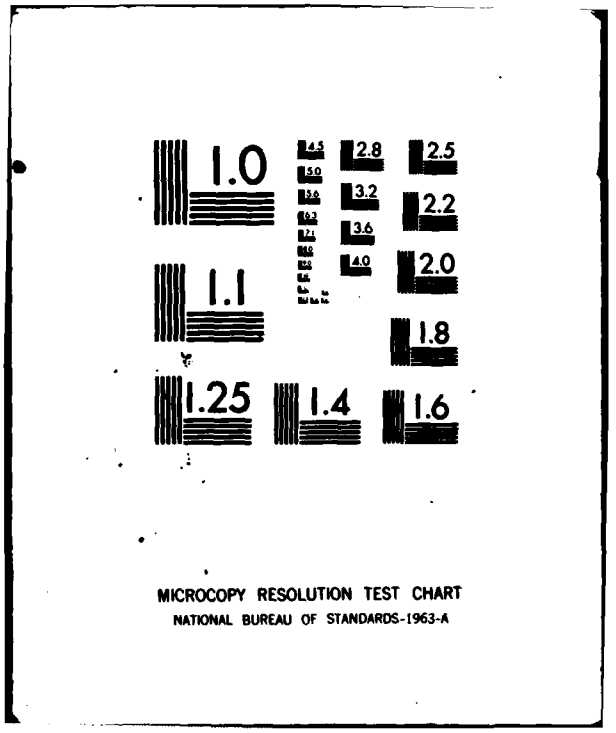
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KODAK EKTAPRINT R-100 Bleach-Fix Replenisher, Part B L-26

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 7

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 120 0542

L-27
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3620

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Bleach-Fix and Replenisher, Part C	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA:	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY ($H_2O = 1$)	1.19
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 76
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, acrid odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES:

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

N. A.

*N. A. - Not applicable

KODAK EKTAPRINT R-100 Bleach-Fix and Replenisher, Part C L-27

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 4.5

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)	Strong mineral acids
HAZARDOUS DECOMPOSITION PRODUCTS	Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)	No				
VENTILATION	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES	No	EYE PROTECTION	No

OTHER PROTECTIVE EQUIPMENT

No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 129 0311 Reissued 11/78

L-28a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4082

SECTION I

PRODUCT NAME:	KODAK EKTAPRINT R-100 Color Developer and Replenisher, Part A	SIZE:	To Make 25 Gallons
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	9/26/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-methanesulfonylaminoethyl)-2-methylphenylenediamine Sesquisulfate Monohydrate	10-20	---
Benzyl Alcohol	40-50	---

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.10
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 91
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 1.2
APPEARANCE AND ODOR	Clear, red, SO_2 odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK EKTAPRINT R-100 Color Developer
and Replenisher, Part A L-28a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Liberates sulfur dioxide gas; TLV 5 ppm (ACGIH, 1977)

EFFECTS OF OVEREXPOSURE INHALAITON: SO_2 gas causes irritation.
EYES: Contact with the liquid or SO_2 gas causes irritation.
SKIN: May cause irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. No. 129 0311

L-29
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4066

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Color Developer and Replenisher, Part B	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA: Aqueous solution	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium Hydroxide	1 - 5	2 mg/m^3
Potassium Carbonate	30 - 40	--------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O=1)	1.40
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 47%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH greater than 14

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid causes eye burns.
SKIN: May cause skin irritation and/or burns.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Immediately flush eyes with plenty of water for approximately 15 minutes and get medical attention.
SKIN: Immediately flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Acids

HAZARDOUS DECOMPOSITION PRODUCTS Carbon dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 129 0311

L-30
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4065

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Color Developer and Replenisher, Part C | SIZE: To make 25 gals.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	5 - 10	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O=1)	1.078
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 91%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Pink-purple, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES:

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

N. A.

*N. A. - Not applicable

KODAK EKTAPRINT R-100 Color Developer and Replenisher, Part C L-30

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.5

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid causes irritation.
SKIN: May cause skin irritation. Repeated contact with the skin may result in allergic skin reaction. Toxic amounts may be absorbed through the skin.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Immediately flush eyes with plenty of water and get medical attention.
SKIN: Immediately flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep tightly sealed.

OTHER PRECAUTIONS

Wash thoroughly after handling.

CAT. ... 129 4503

L-31
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4092

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 First Developer Replenisher | SIZE: To make 25 gals.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroquinone	1 - 5	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.24
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 68
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, amber-slightly pungent odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	None			

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 10

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid may cause irritation.
SKIN: Repeated contact may result in skin irritation and allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Immediately flush with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS
The routine use of a nonalkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT No. 129 4503 New 12/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

L-31.10
4244

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME	KODAK EKTAPRINT R-100 First Developer Replenisher	SIZE To make 25 Gallons
CHEMICAL NAME		
FORMULA	Aqueous Mixture	
MANUFACTURER	EASTMAN KODAK COMPANY	
ADDRESS	343 STATE STREET, ROCHESTER, NEW YORK 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL	(716) 458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL	(716) 722-2121	INFORMATION EFFECTIVE AS OF 10/11/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units) **
Hydroquinone	1 - 5	2 mg/m^3
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F)	Greater than 212°F (100°C)	SPECIFIC GRAVITY (H_2O=1)	1.25
VAPOR PRESSURE (mm Hg)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 70
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (=1)	NA*
SOLUBILITY IN WATER	Complete	pH	Approx. 10
APPEARANCE AND ODOR	Off-white, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS	None	Lel	Uel
EXTINGUISHING MEDIA	NA				
SPECIAL FIRE-FIGHTING PROCEDURES	None				
UNUSUAL FIRE AND EXPLOSION HAZARDS	None				

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*NA - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid may cause irritation. SKIN: Repeated contact may result in skin irritation and allergic skin reaction.

EMERGENCY AND FIRST-AID PROCEDURES

EYES: Immediately flush with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
	UNSTABLE	
	STABLE X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid storing near strong mineral acids.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid)-type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. No. 139 7371

L-32
NEW 12/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

Kodak
4127

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 First Developer ~~Starter~~	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA: Aqueous solution	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.27
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 87%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

KODAK EKTAPRINT R-100 First Developer Starter L-32

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 9.5

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 120 0104

L-33a
REISSUED 3/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3936

SECTION I

PRODUCT NAME: KODAK EKTAPRINT R-100 Stabilizer and Replenisher	SIZE: To make 25 gal.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 3-6-78

SECTION II - HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	28 - 33	2 ppm
Methanol	Less than 5	200 ppm

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	185F (85C)	SPECIFIC GRAVITY (H_2O = 1)	1.07
VAPOR PRESSURE (mm Hg.)	Approx. 32	PERCENT VOLATILE BY VOLUME (%)	95%
VAPOR DENSITY (AIR = 1)	Approx. 1.64	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Yellow-clear, formaldehyde odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
185F (85C) TCC	None		

EXTINGUISHING MEDIA: CO_2, dry chemical, foam

SPECIAL FIRE FIGHTING PROCEDURES:

Avoid inhaling fumes (formaldehyde)

UNUSUAL FIRE AND EXPLOSION HAZARDS:

*N. A. - Not applicable

KODAK EKTAPRINT R-100 Stabilizer and Replenisher L-33a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.5

EFFECTS OF OVEREXPOSURE
INHALATION: Vapor is irritating.
EYES: Direct eye contact causes irritation.
SKIN: Causes irritation. Repeated skin contact may cause allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: React with sodium bisulfate then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Approved organic vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes
EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers.

OTHER PRECAUTIONS

None

IPo 65266A

N-1

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3823

SECTION I

PRODUCT NAME: KODAK Bleach, Process E-6 , Part A | SIZE: To make 1 pt., 1/2, 1, 3-1/2 gal.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.30
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 60%
VAPOR DENSITY (AIR = 1)	0.60	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Red-brown, slightly ammoniacal		

SECTION IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)		FLAMMABLE LIMITS		Lel	Uel
	None		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Bleach, Process E-6 , Part A

N-1

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.5

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush immediately with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush immediately with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers

OTHER PRECAUTIONS

None

CAT 156 6538 - 1 Pint
CAT 156 2461 - 1 Gallon

Reissued 5/79

N-1.5a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4100

SECTION I

PRODUCT NAME:	KODAK Bleach, Process E-6, Part A	SIZE:	Several
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	12/21/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.26
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 77
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 5.4
APPEARANCE AND ODOR	Reddish-brown solution - slight ammoniacal odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

N-2

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3818

SECTION I

PRODUCT NAME: KODAK Bleach, Process E-6 , Part B	SIZE: To make 1 pt., 1/2, 1, 3-1/2, gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.17
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 69%
VAPOR DENSITY (AIR=1)	Approx. 0.60	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Colorless - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel None	Uel
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

A-97

KODAK Bleach, Process E-6 , Part B

N-

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.5

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers.

OTHER PRECAUTIONS

None

CAT 156 6538 - 1 Pint
CAT 156 2461 - 1 Gallon

Reissued 5/79

N-2.5a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3818

SECTION I

PRODUCT NAME: KODAK Bleach, Process E-6, Part B	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 12/21/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.17
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 69
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 5
APPEARANCE AND ODOR	Clear odorless solution		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

N-4

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3773

SECTION I

PRODUCT NAME: KODAK Bleach Starter, Process E-6	SIZE: To start 25 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 1-28-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.14
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 75
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel None	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Bleach Starter, Process E-6

N-4

SECTION V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.7

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

N-5

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

Kodak

-4014

SECTION I

PRODUCT NAME: KODAK Color Developer, Process E-6 , Part A	SIZE: To make 1 pt., 1/2, 1 gal.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Unreacted Potassium Hydroxide	1 - 5	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.20
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 95%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear yellow, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Color Developer, Process E-6 , Part A

N-5

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 13.6

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid causes burns.
SKIN: Prolonged or repeated contact may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Strong acids

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers. Store away from strong acids in case of spills.

OTHER PRECAUTIONS

None

1 pt. - Part of 1 pt. Kit - Cat. 156 0956
1/2 gal. - Cat. 156 3808
1 gal. - Cat. 156 2099

N-6

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3682

SECTION I

PRODUCT NAME: KODAK Color Developer, Process E-6 , Part B	SIZE: To make 1 pt., 1/2, 1 gal.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 10-11-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-Amino-N-ethyl-N-(B-methanesulfonamidoethyl)-m-		
toluidine Sesquisulfate Monohydrate	15 - 20	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.10
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 80%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Amber, sulfur dioxide odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	None	Lel	Uel
EXTINGUISHING MEDIA	N. A.				
SPECIAL FIRE FIGHTING PROCEDURES	N. A.				
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.				

*N. A. - Not applicable

KODAK Color Developer, Process E-6 , Part B

N-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	
Liberates sulfur dioxide gas: TLV 5 ppm	pH less than 1.5

EFFECTS OF OVEREXPOSURE INHALATION: SO_2 gas causes irritation. EYES: Contact with the liquid causes irritation. SO_2 gas may cause irritation. SKIN: Contact with liquid may cause skin irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure.
EYES: For liquid contact, flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in tightly sealed containers.

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

N-7

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3944

SECTION I

PRODUCT NAME:	KODAK Color Developer Replenisher, Process E-6 Part A	SIZE:	To make 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Unreacted Potassium Hydroxide	5 - 10	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.10
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 93%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear-yellow, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Color Developer Replenisher, Process E-6 , Part A

N.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 13.6

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid causes burns. SKIN: Prolonged or repeated contact may cause skin irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid strong acids

HAZARDOUS DECOMPOSITION PRODUCTS Heat

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush spill with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush spill with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers. Keep away from strong acids in case of spill.

OTHER PRECAUTIONS

None

N-8

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3701

SECTION I

PRODUCT NAME:	KODAK Color Developer Replenisher, Process E-6 , Part B	SIZE:	To make 5 gals.
CHEMICAL NAME:	Cat. 156 2131		
FORMULA:	Aqueous mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	(716) 722-2121	INFORMATION EFFECTIVE AS OF:	10-13-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-Amino-N-ethyl-N-(B-methanesulfonamidoethyl-		
m-toluidine Sesquisulfate Monohydrate	4 - 9	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.10
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	76%
VAPOR DENSITY (AIR = 1)	Aporox. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Sulfur dioxide odor, amber color		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Color Developer Replenisher, Process E-6 , Part B

N-5

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Liberates sulfur dioxide gas; TLV 5 ppm | pH less than 1.5

EFFECTS OF OVEREXPOSURE INHALATION: SO_2 gas causes irritation. EYES: Contact with the liquid causes irritation. SO_2 gas may cause irritation. SKIN: Contact with the liquid may cause skin irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from expoure. EYES: For liquid contact, flush immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Strong acids yield sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush spill with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush spill with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes | EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in tightly sealed containers.

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help to minimize the possibility of allergic skin reaction.

KPe 65266A

N-9

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3700

SECTION I

PRODUCT NAME: KODAK Color Developer Starter, Process E-6	SIZE: To make 1 pt.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 1-23-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	15 - 20	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.13
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 87%
VAPOR DENSITY (AIR=1)	Approx. .74	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, vinegar odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Color Developer Starter, Process E-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 1.7

EFFECTS OF OVEREXPOSURE INHALATION: Vapor may cause irritation. EYES: Contact with the liquid causes irritation. Vapor may cause irritation. SKIN: Prolonged or repeated contact may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact flush immediately with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong bases

HAZARDOUS DECOMPOSITION PRODUCTS Heat

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved organic vapor respirator if ventilation is inadequat

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None

OTHER PRECAUTIONS

None

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3775

SECTION I

PRODUCT NAME: KODAK Conditioner, Process E-6 | SIZE: To make 1 pt.. 1/2, 1 gal.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: 716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
1-Thioglycerol	Less than 5%	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.1
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	88.7
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, stale odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

N-16

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6.0

EFFECTS OF OVEREXPOSURE

SKIN: May cause skin irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: If necessary

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

A-11

MATERIAL SAFETY DATA SHEET

3786

SECTION I

PRODUCT NAME: KODAK Conditioner and Replenisher, ~~Process E-6 Cat. 127 8050~~ | SIZE: To make 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 10-15-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
1-Thioglycerol	Less than 5	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.10
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	93%
VAPOR DENSITY (AIR=1)	0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, stale odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Conditioner and Replenisher, Process E-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6

EFFECTS OF OVEREXPOSURE
SKIN: Prolonged and repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: If necessary

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

IV 11-9
NEW 5/77

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10177

SECTION I

PRODUCT NAME: KODAK Defoamer, Process E-6 | SIZE: 4 oz.

CHEMICAL NAME:

FORMULA: Non-aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 5-27-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 914F (490 C)	SPECIFIC GRAVITY ($H_2O = 1$)	Approx. 0.97
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Slight		
APPEARANCE AND ODOR	White-opaque; odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
480F (249C) (MCOC)	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Defoamer, Process E-6 N-11.9

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Soak up. Dispose in landfill and incinerate. Flush to sew any residue with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Soak up. Dispose in landfill and or incinerate. Flush to sewer any residue with copious amounts of water. State and local effluent laws take precedenc

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

N-12

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10177

SECTION I

PRODUCT NAME: KODAK Defoamer, Process E-6	SIZE: 8 ozs.
CHEMICAL NAME:	
FORMULA: Non-Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 8-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 914 F (490 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 0.97
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Slight		
APPEARANCE AND ODOR	White-opaque, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 480 F (249 C) (MCOC)	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	N. A.		
SPECIAL FIRE FIGHTING PROCEDURES	N. A.		
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.		

*N. A. - Not applicable

KODAK Defoamer, Process E-6

N-1

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Soak up. Dispose in landfill and incinerate. Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Soak up. Dispose in landfill and incinerate. Flush to sewer any residue with copious amounts of water. State and local effluent laws take preceden

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT

No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

KPo 65760A

CAT. No. 139 6084

N-12.2
NEW 10/1

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4121

SECTION I

PRODUCT NAME: KODAK E-6 Transparency Retouching Dye (Cyan)	SIZE: 4 oz.
CHEMICAL NAME:	
FORMULA:	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 9-28-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.0
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR = 1)	Approx. 0.7	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Blue, slightly pungent, liquid		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES:

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

N. A.

*N. A. - Not applicable

KODAK E-6 Transparency Retouching Dye (Cyan) N-12.2

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.0

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		None
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Do not store below 40F to avoid expansion and breakage of container.

OTHER PRECAUTIONS

None

CAT. NO. 139 6100

N-12.3
NEW 9/77

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

4122

SECTION I

PRODUCT NAME: KODAK E-6 Transparency Retouching Dye (Yellow) | SIZE: 4 oz.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 9-28-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	1.0
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Yellow, slightly pungent, liquid		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA N. A.

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

N-12.3

KODAK E-6 Transparency Retouching Dye (Yellow)

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.0

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		None
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store below 40F to avoid expansion and container breakage.

OTHER PRECAUTIONS

None

CAT. NO. 122 4969

IN-12.1
NEW 3/78

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

4080

SECTION I

PRODUCT NAME: KODAK E-6 Transparency Retouching Dye (~~Magenta~~) | SIZE: 4 ozs.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 3-8-78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Approx. 200F (93C)	SPECIFIC GRAVITY (H_2O = 1)	1.002
VAPOR PRESSURE (mm Hg.)	50	PERCENT VOLATILE BY VOLUME (%)	Approx. 99%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Reddish, translucent liquid, slight pungent odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA None

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

KODAK E-6 Transparency Retouching Dye (Magenta) N-12.4

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.0

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep from temperatures below 20F to avoid bottle breakage.

OTHER PRECAUTIONS

None

KPo 652666

NEW 4/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4025

SECTION I

PRODUCT NAME: KODAK E-6 Retouching Dye Buffer | SIZE: 4 Ozs.

CHEMICAL NAME:

FORMULA:

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 3-16-78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.11 at 70F
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 45
VAPOR DENSITY (AIR = 1)	0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Colorless, odorless solution		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES:

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

N. A.

*N. A. - Not applicable

KODAK E-6 Retouching Dye Buffer N-12.5

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.5

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT 156 4632 - To Make 1 Gallon
CAT 156 6538 - 1 Pint Kit

Reissued 6/79

N-13a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4023

SECTION I

PRODUCT NAME: KODAK First Developer, Process E-6	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 1/25/79

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium Hydroquinone Monosulfonate	5-10	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.32
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 76
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 10
APPEARANCE AND ODOR	Clear; amber; odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid causes irritation.
SKIN: Prolonged contact may cause irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong acids or bases.

HAZARDOUS DECOMPOSITION PRODUCTS Carbon dioxide, sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimi the possibility of allergic skin reaction.

The information herein is believed to be correct as of the date hereof, but is provided without warranty of any kind.

Cat. No. 156 4815 Reissued 9/78

N-14a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

1269

SECTION I

PRODUCT NAME:	KODAK First Developer Replenisher, Process F-6	SIZE:	To Make 5 Gallons
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	6/21/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium hydroquinone monosulfonate	5-10	---

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.294
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 60%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 10
APPEARANCE AND ODOR	Off-white, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK First Developer Replenisher,
Process E-6 N-14a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid may cause irritation.
SKIN: Repeated contact may cause skin irritation and allergic skin reaction

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide gas, CO_2.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimi the possibility of allergic skin reaction.

N-15

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3690

SECTION I

PRODUCT NAME: KODAK First Developer Starter, Process E-6 | SIZE: To make 1 pt.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 1-23-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	5 - 10	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.16
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx 83%
VAPOR DENSITY (AIR=1)	Approx. 0.66	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, vinegar odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK First Developer Starter, Process E-6 N-15

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 1.8

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid causes irritation.
SKIN: May cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong bases

HAZARDOUS DECOMPOSITION PRODUCTS Heat

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

No. 156 6538 - 1 Pint Kit
No. 156 6066 - To Make ½ Gal.
No. 156 6082 - To Make 1 Gal.

Reissued 9/78

N-16a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

4007/4256

SECTION I

PRODUCT NAME: KODAK Fixer, Process F-6	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 5/29/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.3
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 49%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 6
APPEARANCE AND ODOR	Clear, slight yellow, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

. No. 121 3651 - To Make 3½ Gals.
. No. 127 8019 - To Make 5 Gals.
. No. 123 7619 - To Make 25 Gals.

Reissued 9/78

N-17a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

4007/4

SECTION I

PRODUCT NAME:	KODAK Fixer and Replenisher, Process E-6	SIZE:	Several
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	6/29/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.3
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 49%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 6
APPEARANCE AND ODOR	Odorless, slight yellow color		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA	N. A.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

*N. A. - Not Applicable

KODAK Fixer and Replenisher,
Process E-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

:. No. 123 7619 - To Make 25 Gals.
:. No. 121 3651 - To Make 3¼ Gals.

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N-18a

MATERIAL SAFETY DATA SHEET

358[illegible]

SECTION I

PRODUCT NAME:	KODAK Fixer and Replenisher, Process F-6	SIZE:	Several
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	6/29/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.3
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	40%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 6
APPEARANCE AND ODOR	Clear - slightly yellow, odorless liquid.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA	N. A.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

N-19

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3992

SECTION I

PRODUCT NAME: KODAK Reversal Bath, Process E-6 | SIZE: To make 1 pt., 1/2, 1 gal.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 1-23-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.20
VAPOR PRESSURE (mm Hg.)	Approx. 18	PERCENT VOLATILE BY VOLUME (%)	Approx. 66%
VAPOR DENSITY (AIR=1)	Approx. 0.8	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, slightly sweet odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Reversal Bath, Process E-6

N-19

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6.0

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3948

SECTION I

PRODUCT NAME:	KODAK Reversal Bath and Replenisher, Process E-6	SIZE:	To make 3-1/2 gal.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-29-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
p-Aminophenol	Less than 1	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.28
VAPOR PRESSURE (mm Hg.)	Approx. 18	PERCENT VOLATILE BY VOLUME (%)	Approx. 74
VAPOR DENSITY (AIR = 1)	Approx. 0.85	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, pungent		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Reversal Bath and Replenisher, Process E-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6.0

EFFECTS OF OVEREXPOSURE

SKIN: Prolonged and repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a nonalkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

25 gal. - CAT. No. 123 7593

AV-21a

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3968

SECTION I

PRODUCT NAME: KODAK Reversal Bath and Replenisher, Process E-6	SIZE: To make 5, 25 gal.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-29-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
p-Aminophenol	Less than 1	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.25
VAPOR PRESSURE (mm Hg.)	Approx. 18	PERCENT VOLATILE BY VOLUME (%)	Approx. 75
VAPOR DENSITY (AIR = 1)	Approx. 0.8	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, pungent		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel None	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Reversal Bath and Replenisher, Process E-6 N-21

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 6

EFFECTS OF OVEREXPOSURE
SKIN: Prolonged and repeated contact may result in allergic skin reaction

EMERGENCY AND FIRST AID PROCEDURES

SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

N-22

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3757

SECTION I

PRODUCT NAME: KODAK Stabilizer, Process E-6 | SIZE: To make 1 pt.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 9-21-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	1 - 5	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.01
VAPOR PRESSURE (mm Hg.)	Approx. 54	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR = 1)	Approx. 1.15	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
207 F (97 C) O.C.		7.0	73

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not applicable

KODAK Stabilizer, Process E-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 7

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid or vapor causes irritation. SKIN: Prolonged contact with the liquid causes irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water for 15 minutes and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with Sodium Bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

N-23

CAT. No. 156 7098

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3790

SECTION I

PRODUCT NAME: KODAK Stabilizer, Process E-6 | SIZE: To make 1/2 gal.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL; (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 9-21-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	10 - 15	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.03
VAPOR PRESSURE (mm Hg.)	Approx. 54	PERCENT VOLATILE BY VOLUME (%)	99%
VAPOR DENSITY (AIR = 1)	Approx. .70	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, strong aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
205 F (96 C) O.C.		7.0	73

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS:

*N. A. - Not applicable

KODAK Stabilizer, Process E-6

N-23

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid or vapor causes irritation. SKIN: Prolonged contact with the liquid causes irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water for 15 minutes and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

KPo 4526BA

N-24

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3808

SECTION I

PRODUCT NAME: KODAK Stabilizer, Process E-6 | SIZE: To make 1 gal.
Cat. 156 7155

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 10-15-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	25 - 30	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 200 F (93 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.06
VAPOR PRESSURE (mm Hg.)	Approx. 54	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR = 1)	Approx. .76	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
204 T.O.C.		7.0	73

EXTINGUISHING MEDIA None

SPECIAL FIRE FIGHTING PROCEDURES

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N A - Not applicable

KODAK Stabilizer, Process F-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.5

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation.
EYES: Contact with the liquid or vapor causes irritation.
SKIN: Prolonged contact with the liquid causes irritation. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure.
EYES: For liquid contact, immediately flush with plenty of water for at least 15 minutes and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

5 gal. - 127 8035

N-25

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3808

SECTION I

PRODUCT NAME: KODAK Stabilizer and Replenisher, Process E-6 | SIZE: To make 3½, 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 10-15-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	25 - 30	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 200 F (93 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.06
VAPOR PRESSURE (mm Hg.)	Approx. 54	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR=1)	Aporox. .76	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
204 T.O.C.		7.0	73

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not applicable

A-153

KODAK Stabilizer and Replenisher, Process E-6

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.5

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation.
EYES: Contact with the liquid or vapor causes irritation.
SKIN: Prolonged contact with the liquid causes irritation. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure.
EYES: For liquid contact, immediately flush with plenty of water for at least 15 minutes and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 123 7577

AJ-26

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4031

SECTION I

PRODUCT NAME: KODAK Stabilizer and Replenisher, Process E-6	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 9-20-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	25 - 30	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.06
VAPOR PRESSURE (mm Hg.)	Approx. 54	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR=1)	Approx. 0.76	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
204 F O.C.		7.0	73

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not applicable

KODAK Stabilizer and Replenisher, Process E-6

N-2

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.5

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid or vapor causes irritation. SKIN: Prolonged contact with the liquid causes irritation. Repeated contact may cause allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Neutralize with sodium bisulfite, then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

KPo 65266A

CAT 196 5623

Reissued 5/79

N-27b

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

4100

SECTION I

PRODUCT NAME: KODAK Bleach Replenisher, Process E-633 | SIZE: 5 Gallons

CHEMICAL NAME:

FORMULA: Aqueous Mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: 716-722-2121 | INFORMATION EFFECTIVE AS OF: 12/21/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.26
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 77
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 5.4
APPEARANCE AND ODOR	Reddish-brown solution - slight ammoniacal odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS

None

CAT 1o3 2492

Reissued 6/79

N-29a

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4325

SECTION I

PRODUCT NAME:	KODAK Color Developer Replenisher, Process E-6AR, Part A	SIZE:	5 Gallon
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	3/22/79

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Potassium hydroxide	5-10	2 mg/m^3
		**ACGIH, 1978

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.18
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 89
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 13
APPEARANCE AND ODOR	Clear, yellowish green; odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid causes burns.
SKIN: Prolonged or repeated contact may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in tightly sealed containers.
Store away from strong acids in case of spills.

OTHER PRECAUTIONS

None

CAT 183 2518

Reissued 6/79

N-29a

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3693

SECTION I

PRODUCT NAME:	KODAK Color Developer Replenisher, Process E-6AR, Part B	SIZE:	5 Gallon
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	3/22/79

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-methanesulfonyl-	5-10	-----
aminoethyl)-2-methylphenylenediamine		
Sesquisulfate Monohydrate		

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.1
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	93
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 1.5
APPEARANCE AND ODOR	Sharp odor, amber in color.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Liberates sulfur dioxide gas; TLV 5 ppm (ACGIH, 1978)

EFFECTS OF OVEREXPOSURE: INHALATION: SO_2 gas causes irritation. EYES: Contact with the liquid causes irritation. SO_2 gas may cause irritation. SKIN: Contact with the liquid may cause skin irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD:
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved acid-gas respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep in tightly sealed containers. Store way from strong bases in case of spill.

OTHER PRECAUTIONS:
The routine use of a non-alkaline (acid) type hand cleaner will help to minimize the possibility of allergic skin reaction.

N-30

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3786

SECTION I

PRODUCT NAME: KODAK Conditioner and Replenisher, Process E-6AR | SIZE: 5 gals. (Cubitainer)

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
1-Thioglycerol	Less than 4%	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.10
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	93%
VAPOR DENSITY (AIR=1)	0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, stale odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Conditioner and Replenisher, Process E-6AR

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6.0

EFFECTS OF OVEREXPOSURE

SKIN: May cause skin irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: If necessary

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. No. 156 4830

Reissued 9/78

N-31a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4269

SECTION I

PRODUCT NAME:	KODAK First Developer Replenisher, Process E-6NR	SIZE:	5 Gallons
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	6/21/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium Hydroquinone Monosulfonate	5-10	---

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 60%
VAPOR DENSITY (Air = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 10
APPEARANCE AND ODOR	Off-white, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid may cause irritation.
SKIN: Repeated contact may cause skin irritation and allergic skin reactior

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide gas, CO_2.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimi the possibility of allergic skin reaction.

CAT. No. 121 3677 Reissued 9/78

N-32a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3587/4273

SECTION I

PRODUCT NAME:	KODAK Fixer and Replenisher, Process E-6AR	SIZE:	5 Gallons
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	6/29/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.3
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	40%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 6
APPEARANCE AND ODOR	Clear - slight yellow liquid - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	N. A.		

EXTINGUISHING MEDIA	N. A.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

2/77 N-33a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3968

SECTION I

PRODUCT NAME: KODAK Reversal Bath and Replenisher, Process E-6AR Cat. 121 3636	SIZE: 5 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
p-Aminophenol	Less than 1	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.25
VAPOR PRESSURE (mm Hg.)	Approx. 18	PERCENT VOLATILE BY VOLUME (%)	Approx. 75
VAPOR DENSITY (AIR = 1)	Approx. 0.8	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, pungent odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Reversal Bath and Replenisher, Process E-6AR

N-3

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	
	pH approx. 6

EFFECTS OF OVEREXPOSURE

SKIN: Repeated contact may cause irritation and allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a nonalkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

KP-o 65266A

CAT. No. 156 7510

N-34
NEW 12/--

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3790

SECTION I

PRODUCT NAME: KODAK Stabilizer & Replenisher, Process ~~E-6R~~ | SIZE: 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	10 - 15	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 200F (93C)	SPECIFIC GRAVITY (H_2O = 1)	1.03
VAPOR PRESSURE (mm Hg.)	Approx. 54	PERCENT VOLATILE BY VOLUME (%)	99%
VAPOR DENSITY (AIR = 1)	Approx. 0.7	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, strong aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
205F (96C)		7.0	--

EXTINGUISHING MEDIA CO_2

SPECIAL FIRE FIGHTING PROCEDURES

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not Applicable

AD-A091 914 RANGE COMMANDERS COUNCIL WHITE SANDS MISSILE RANGE NM--ETC F/G 6/10
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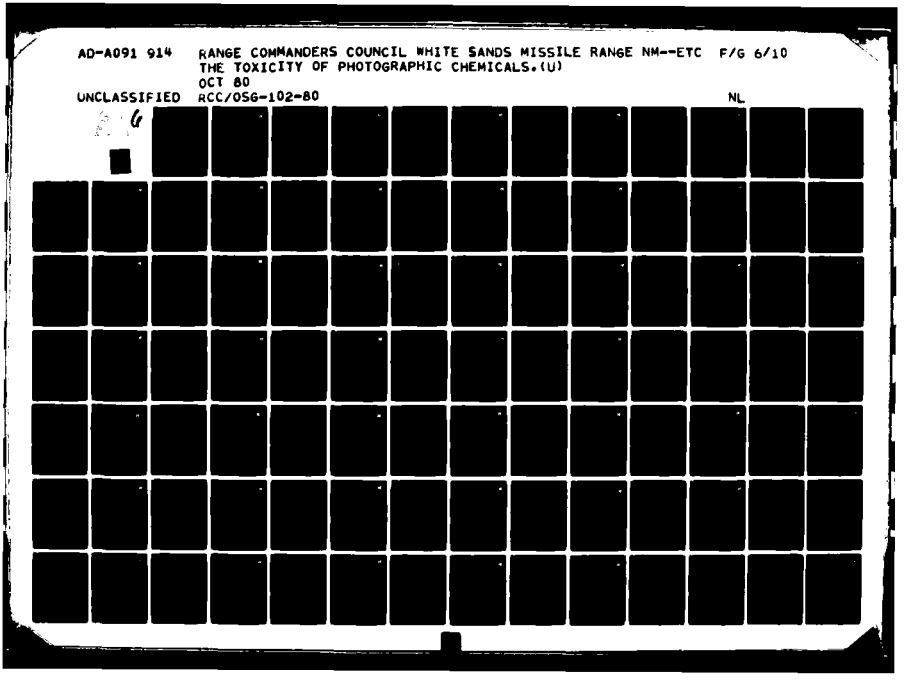

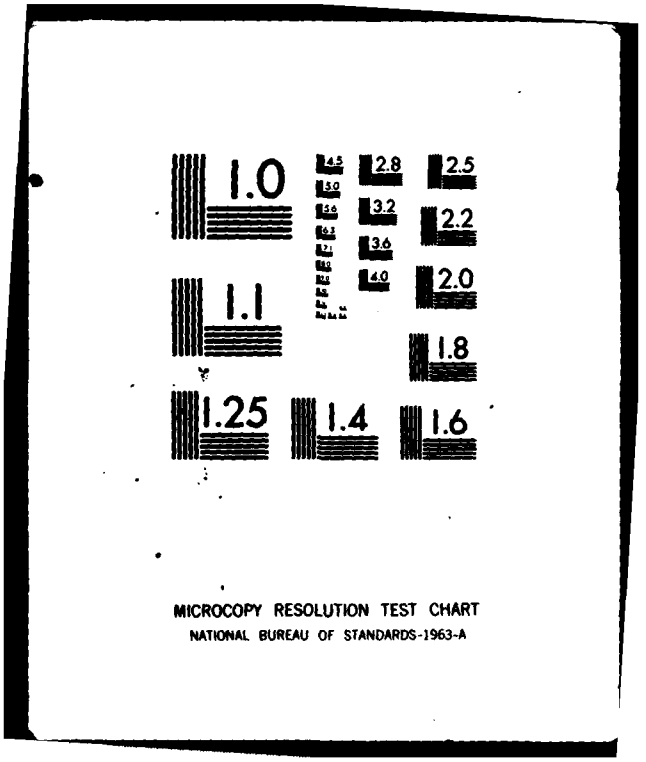

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KODAK Stabilizer & Replenisher, Process E-6AR N-34

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid or vapor causes irritation. SKIN: Prolonged contact with the liquid causes irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water for 15 minutes and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence..

WASTE DISPOSAL METHOD

Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

KPo 65266A

at. 194 7753 - To Make 1 Gal.
at. 187 9824 - To Make 3½ Gals.
at. 187 9808 - To Make 10 Gals.

Reissued 6/79

P-12a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3325

SECTION I

PRODUCT NAME: KODAK Liquid Developer, Process C-22, Part A	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 3/5/70

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-methanesulfonylaminoethyl)-2-		
methylphenylenediamine sesquisulfate monohydrate	15- 20	-----
Benzyl Alcohol	20 - 25	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.13
VAPOR PRESSURE (mm Hg.)	Approx. 19	PERCENT VOLATILE BY VOLUME (%)	Approx. 80
VAPOR DENSITY (AIR=1)	Approx. 2.7	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 1.5
APPEARANCE AND ODOR	Clear, reddish brown - odor of sulfur dioxide.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
Greater than 212 F (100 C)	None		

EXTINGUISHING MEDIA CO_2, dry chemical, water

SPECIAL FIRE FIGHTING PROCEDURES None

UNUSUAL FIRE AND EXPLOSION HAZARDS None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Liberates sulfur dioxide TLV 5 ppm (ACGIH, 1978)

EFFECTS OF OVEREXPOSURE INHALATION: Vapor may cause irritation. EYES: Contact with the liquid may cause burns. Vapor may cause irritation. SKIN: Prolonged contact with the liquid may cause irritation. Repeated contact may result in allergic skin reaction. May be absorbed through the intact skin.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide gas

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with bicarbonate or soda ash, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD Neutralize with bicarbonate, then flush to sewer with copious amounts of water, landfill, or incinerate. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved air purifying respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

P-13a
REISSUED

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3154

SECTION I

PRODUCT NAME: KODAK Liquid Developer, Process C-22, Part B	SIZE: All sizes
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-7-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium Metaborate	25 - 30	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.25
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	70%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear white; odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		N. A.		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Liquid Developer, Process C-22, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 14

EFFECTS OF OVEREXPOSURE
EYES: Direct contact with eyes causes burns.
SKIN: Contact with the skin may cause irritation and if prolonged can result in burns.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid strong acids

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT
If necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid strong acids

OTHER PRECAUTIONS

CAT 187 9766 - To Make 5 Gallons
CAT 187 9626 - To Make 25 Gallons

Reissued 6/79

P-14a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3588

SECTION I

PRODUCT NAME:	KODAK Liquid Developer Replenisher, Process C-22, Part A	SIZE:	Several
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	4/25/72

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-methanesulfonylaminoethyl)-2-		
methylphenylenediamine sesquisulfate monohydrate	20 - 25	-----
Benzyl Alcohol	20 - 25	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.14
VAPOR PRESSURE (mm Hg.)	Approx. 18	PERCENT VOLATILE BY VOLUME (%)	Approx. 84
VAPOR DENSITY (AIR=1)	2.07	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 1.0
APPEARANCE AND ODOR	Clear, reddish brown color - odor of sulfur dioxide.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
Greater than 212 F (100 C)	None		

EXTINGUISHING MEDIA: CO_2, water, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Liberates sulfur dioxide TLV 5 ppm (ACGIH, 1978)

EFFECTS OF OVEREXPOSURE INHALATION: Vapor may cause irritation. EYES: Contact with the liquid may cause burns. Vapor may cause irritation. SKIN: Prolonged contact with the liquid may cause irritation. Repeated contact may result in allergic skin reaction. May be absorbed through the intact skin.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide gas

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with bicarbonate or soda ash, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD Neutralize with bicarbonate, then flush to sewer with copious amounts of water. Landfill or incinerate. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved air purifying respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

P-15

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3332

SECTION I

PRODUCT NAME: KODAK Liquid Developer Replenisher, Process C-22, Part B | SIZE: To make 1/2 gal.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-14-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Unreacted potassium hydroxide	1 - 3	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.34
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 50
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Light straw color - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

N. A. - Not applicable

P-15

KODAK Liquid Developer Replenisher, Process C-22, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH greater than 13

EFFECTS OF OVEREXPOSURE
Acute - Contact with skin or eyes causes severe burns.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES
In case of contact with skin or eyes, flush immediately with plenty of water for at least 15 minutes; for eyes, get additional medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid contact with mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS SO_2

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with bisulfate. Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Incinerate; landfill; follow above procedure. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid contact with mineral acids

OTHER PRECAUTIONS

None

KPo 65766A

P-16

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3334

SECTION I

PRODUCT NAME: KODAK Liquid Developer Replenisher, Process C-22, Part B	SIZE: To make 5 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-12-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Unreacted potassium hydroxide	1 - 3	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.37
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 70
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Light straw color - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Liquid Developer Replenisher, Process C-22, Part B

P-15

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH greater than 13

EFFECTS OF OVEREXPOSURE
Acute - Contact with skin or eyes causes severe burns.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES
In case of contact with skin or eyes, flush immediately with plenty of water for at least 15 minutes; for eyes, get additional medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Avoid mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS: SO_2

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with bisulfate. Flush to sewer with copious amounts of water.

WASTE DISPOSAL METHOD

Incinerate; landfill; follow above procedures. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid mineral acids

OTHER PRECAUTIONS

None

KP-o 652866

P-17

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3217

SECTION I

PRODUCT NAME: KODAK Liquid Developer Replenisher, Process C-22, Part B	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-12-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Unreacted potassium hydroxide	1 - 3	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.40
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 66
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Light straw color - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK Liquid Developer Replenisher, Process C-22, Part B

P.17

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. greater than 14

EFFECTS OF OVEREXPOSURE

Acute - Contact with skin or eyes causes severe burns.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES

In case of contact with skin or eyes, flush immediately with plenty of water for at least 15 minutes; for eyes, get additional medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Avoid contact with mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS: SO_2

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with bisulfate. Flush to sewer with copious amounts of water.

WASTE DISPOSAL METHOD

Incinerate; landfill, follow above procedure. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with mineral acids

OTHER PRECAUTIONS

None

KPo 652064

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3228

SECTION I

PRODUCT NAME: KODAK Liquid Developer Replenisher, Process C-22, Part B	SIZE: To make 75 gals.
CHEMICAL NAME:	
FORMULA: Aqueous solution	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-12-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Unreacted potassium hydroxide	1 - 3	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.52
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 68%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Light straw color - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK Liquid Developer Replenisher, Process C-22, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 14

EFFECTS OF OVEREXPOSURE

Acute - Contact with skin or eyes causes severe burns.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES

In case of contact with skin or eyes, flush immediately with plenty of water for at least 15 minutes; for eyes, get additional medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Avoid mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS: SO_2

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with bisulfate. Flush to sewer with copious amounts of water.

WASTE DISPOSAL METHOD

Incinerate; landfill; or follow above procedure. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with mineral acids

OTHER PRECAUTIONS

None

Q-1

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10123

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach, Part A	SIZE: To make 1 pt.
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Sublimes	SPECIFIC GRAVITY (H_2O = 1)	2.55
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

Q-1

KODAK FLEXICOLOR Bleach, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Acids; acid salts; alkalis

HAZARDOUS DECOMPOSITION PRODUCTS Ammonia and bromine

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Collect in a beaker. Dissolve in large amount of water. Add soda ash, mix. Add 6M-HCl, wash down drain with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Collect in a beaker. Dissolve in large amount of water. Add soda ash, mix. Add 6M-HCl, wash down drain with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store away from acids, acid salts, and alkali.

OTHER PRECAUTIONS

None

KPo 65766A

Q-2

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10123

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach, Part A | SIZE: To make 1 gal.

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL (716) 722-2121 INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Sublines	SPECIFIC GRAVITY (H_2O = 1)	2.55
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR =	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White; odorless powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)		FLAMMABLE LIMITS		Lel	Uel
	None		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

Q-2

KODAK FLEXICOLOR Bleach, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None

EFFECTS OF OVEREXPOSURE
Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES
None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Acids; acid salts, alkalis

HAZARDOUS DECOMPOSITION PRODUCTS Ammonia and bromine

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Collect in a beaker. Dissolve in large amounts of water. Add soda ash, mix, add 6M-HCl, wash down drain with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Collect in a beaker. Dissolve in large amounts of water. Add soda ash, mix, add 6M-HCl, wash down drain with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store away from acids, acid salts, and alkali

OTHER PRECAUTIONS

None

A-3

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3653

PRODUCT NAME: KODAK FLEXICOLOR Bleach, Part B | SIZE: To make 1 pt.

CHEMICAL NAME:

FORMULA: aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL (716) 722-2121 INFORMATION EFFECTIVE AS OF: 7-19-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	45-50	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	245 F (118 C)	SPECIFIC GRAVITY (H_2O=1)	1.05
VAPOR PRESSURE (mm Hg.)	Approx. 32	PERCENT VOLATILE BY VOLUME (%)	100%
VAPOR DENSITY (AIR=1)	1.33	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear and colorless; vinegar odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH less than 1.5

EFFECTS OF OVEREXPOSURE **INHALATION:** Vapor causes irritation.
EYES: Direct eye contact may cause burns. Vapor is irritating.
SKIN: May cause burns.

EMERGENCY AND FIRST AID PROCEDURES **INHALATION:** Remove from exposure.
EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Strong alkalis

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved organic acid vapor respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store away from strong alkalis

OTHER PRECAUTIONS

None

CAT. No. 155 5655

4-78
REISSUED 4/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10001

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach, C-41, Part B | SIZE: To make 1 gal.

CHEMICAL NAME:

FORMULA: Organic solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 NFORMATION EFFECTIVE AS OF: 3-15-78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Glacial Acetic Acid	95 - 100	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	245F (118C)	SPECIFIC GRAVITY (H_2O = 1)	1.049
VAPOR PRESSURE (mm Hg.)	11.4 at 20C	PERCENT VOLATILE BY VOLUME (%)	99%
VAPOR DENSITY (AIR = 1)	2.07	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear liquid, strong pungent, vinegar-like odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
103F (39C)		6.67 at 139F	19.9 at 199F

EXTINGUISHING MEDIA CO_2 or spray foam

SPECIAL FIRE FIGHTING PROCEDURES
Wear fresh air mask and equipment to avoid contact (rubber gloves, boots, etc.)

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach, C-41, Part B Q-4a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH less than 1.5

EFFECTS OF OVEREXPOSURE

INHALATION: Vapor causes irritation. EYES: Vapor causes irritation. Contact with liquid causes severe burns. SKIN: Contact with liquid causes severe burns.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Alkali, amines, alcohols, heat.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bicarbonate then flush to sewer with copious amounts of water. See Section VIII for protective equipment. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Neutralize with sodium bicarbonate then flush to sewer with copious amounts of water. See Section VIII for protective equipment. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved organic acid vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-5

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3422

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach, Part C	SIZE: To make 1 pt.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Opaque, reddish-brown; slight ammoniacal odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach, Part C Q-5

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 7

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-6

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3422

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach, Part C	SIZE: To make 1 gal.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CAI (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	Opaque, reddish-brown; slight ammoniacal odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 7

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-7

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3813

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach Regenerator, Part A | SIZE: To make 5, 25 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-13-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	10 - 15	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY ($H_2O = 1$)	1.262
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	65%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution; acetic acid odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Regenerator, Part A Q-7

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 1.5

EFFECTS OF OVEREXPOSURE: **INHALATION:** Vapor may cause irritation. **EYES:** Contact with the liquid causes irritation. Vapor may cause irritation. **SKIN:** Prolonged or repeated contact with the liquid may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES: **INHALATION:** Remove from exposure.
EYES: For liquid contact, flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved organic vapor respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-8

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3874

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach Regenerator, Part A

SIZE: To make 75 gallons

CHEMICAL NAME:

FORMULA:

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 7/9/76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	10 - 15	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.2671
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 58%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, sharp odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Regenerator, Part A C8

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 2

EFFECTS OF OVEREXPOSURE: INHALATION: May cause irritation. EYES: Contact with the liquid causes irritation. Vapor may cause irritation. SKIN: Prolonged contact with the liquid may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved organic vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

A-9

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3422

SECTION I Trade or Distributing Name

PRODUCT NAME: KODAK FLEXICOLOR Bleach Regenerator, Part B | SIZE: To make 5, 25 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 10-15-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Red brown - slight ammonia odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES:

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

N. A.

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Regenerator, Part B

Q-9

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

pH approx. 7

EFFECTS OF OVEREXPOSURE

Acute - Of low toxicity and low hazard to health.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush down drain with H_2O. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush down drain with H_2O. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: None

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-10

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3422

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach Regenerator, Part B	SIZE: To make 75 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-18-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Red-brown; slight ammonia odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Regenerator, Part B

Q-10

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 7

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush down drain with water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush down drain with water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q - 11

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3887

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach Replenisher, Part A	SIZE: To make 5, 12½, 75 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 2-18-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.3076
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	58%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear white, sharp odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Replenisher, Part A Q-11

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 2.5

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-12

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10125

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach Replenisher, Part A | SIZE: To make 25 gals.

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Sublimes	SPECIFIC GRAVITY (H_2O = 1)	2.55
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Acids; acid salts; alkalis

HAZARDOUS DECOMPOSITION PRODUCTS: Ammonia and bromine

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Collect in a beaker. Dissolve in large amount of water. Add soda ash, mix. Add 6M-HCL, wash down drain with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Collect in a beaker. Dissolve in large amount of water. Add soda ash, mix. Add 6M-HCl, wash down drain with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store away from acids, acid salts, and alkali

OTHER PRECAUTIONS

None

Q-13

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10981

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach Replenisher, Part A-1	SIZE: To make 25 gals.
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Decomposes. Approx 750 F (400 C)	SPECIFIC GRAVITY (H_2O = 1)	2.1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Replenisher, Part A-1

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk powder and dispose in a chemical waste area. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk powder and dispose in a chemical waste area. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep dry in tightly sealed containers

OTHER PRECAUTIONS

None

Q-14

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3422

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Bleach Replenisher, Part B	SIZE: To make 5, 12½, 75 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CAL (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-18-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Red-brown; slight ammonia odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Replenisher, Part B

Q-14

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

pH approx. 7

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush down drain with water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush down drain with water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

A-15

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3807

SECTION I

PRODUCT NAME:	KODAK FLEXICOLOR Bleach Replenisher, Part B	SIZE:	To make 25 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL (716) 722-2121 INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	65 - 70	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY ($H_2O = 1$)	1.05
VAPOR PRESSURE (mm Hg.)	32	PERCENT VOLATILE BY VOLUME (%)	100%
VAPOR DENSITY (AIR = 1)	Approx. 1.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Sharp, vinegar odor; colorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel 4.0	Uel 16.0

EXTINGUISHING MEDIA: Foam, CO_2, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES

Avoid contact with skin or breathing vapor.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH Less than 1.5

EFFECTS OF OVEREXPOSURE **INHALATION: Vapor causes irritation. EYES: Direct eye contact may cause burns. Vapor is irritating. SKIN: May cause burns.**

EMERGENCY AND FIRST AID PROCEDURES **INHALATION: Remove from exposure.**
EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) **None**

HAZARDOUS DECOMPOSITION PRODUCTS **None**

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **Flush to sewer with copious amounts of water. State and local effluent laws take precedence.**

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) **An approved organic acid vapor respirator if ventilation is inadequate**

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES **Yes** EYE PROTECTION **Yes**

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers away from strong bases in case of spill.

OTHER PRECAUTIONS

None

Q-16

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3422

SECTION I of broad wf [illegible]

PRODUCT NAME: KODAK FLEXICOLOR Bleach Replenisher, Part C | SIZE: To make 25 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Opaque, reddish-brown; ammoniacal odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK FLEXICOLOR Bleach Replenisher, Part C

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 7

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) **None**

HAZARDOUS DECOMPOSITION PRODUCTS **None**

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: **Flush to sewer with copious amounts of water. State and local effluent laws take precedence.**

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) **No**

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES. **No** EYE PROTECTION **No**

OTHER PROTECTIVE EQUIPMENT **No**

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME KODAK FLEXICOLOR Bleach Starter	SIZE To make 1 qt.
CHEMICAL NAME	
FORMULA Aqueous solution	
MANUFACTURER EASTMAN KODAK COMPANY	
ADDRESS 343 STATE STREET, ROCHESTER, NEW YORK 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL (716) 458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL (716) 722-2121	INFORMATION EFFECTIVE AS OF 8/17/76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units)
Ammonia	25 - 30	25 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F) Greater than 140 F (60 C)	SPECIFIC GRAVITY (H_2O=1) 0.9
VAPOR PRESSURE (mm Hg) Approx. 500	PERCENT VOLATILE BY VOLUME (%) 100%
VAPOR DENSITY (AIR=1) Approx. 1.2	EVAPORATION RATE (=1) N. A. *
SOLUBILITY IN WATER Complete	
APPEARANCE AND ODOR Clear, colorless, sharp ammonia odor	

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used) None	FLAMMABLE LIMITS	Lel 16	Uel 25

EXTINGUISHING MEDIA
CO_2, water, dry chem foam

SPECIAL FIRE-FIGHTING PROCEDURES

UNUSUAL FIRE AND EXPLOSION HAZARDS

*N. A. - Not applicable

SECTION V HEALTH HAZARD DATA

RESHOLD LIMIT VALUE	pH approx. 13

ECTS OF OVEREXPOSURE **INHALATION: Vapor is very irritating. EYES: Contact with the quid causes burns. Vapor is irritating. SKIN: Contact with the liquid causes burns.**

ERGENCY AND FIRST-AID PROCEDURES

HALATION: Remove from exposure. EYES: For liquid contact, flush immediately th plenty of water for at least 15 minutes and get medical attention. SKIN: Flush mediately with plenty of water for 15 minutes. For burns get medical attention.

SECTION VI REACTIVITY DATA

ABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE X	

COMPATIBILITY
terials to avoid) Strong acids

ZARDOUS
COMPOSITION PRODUCTS Violent reaction with strong acids.

ZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
ay Occur	Will Not Occur X	

SECTION VII SPILL OR LEAK PROCEDURES

EPS TO BE TAKEN
CASE MATERIAL IS
LEASED OR SPILLED Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

STE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

SPIRATORY PROTECTION
ecify Type) Self-contained breathing apparatus or airline respirator for emergency.

NTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

OTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

HER
OTECTIVE
UIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

ECAUTIONS TO BE
KEN IN HANDLING
D STORING
None

HER PRECAUTIONS
None

. No. 195 3348 - To Make 1 Pint
. No. 192 7698 - To Make 1 Gal.
. No. 191 8895 - To Make 3½ Gals.

Reissued 9/78

Q-17.5

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4304

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer, Part A	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 9/18/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.416
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 64%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	(80 F) 10.99
APPEARANCE AND ODOR	Clear, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Keep tightly sealed.

OTHER PRECAUTIONS

None

CAT. 195 3348

Reissued 3/79

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

O-21a

Kodak

3647

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer, Part B	SIZE: To Make 1 Pint
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/16/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	5 - 10	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.06
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 90
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3
APPEARANCE AND ODOR	Colorless, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Direct eye contact causes irritation. SKIN: Causes irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush eyes immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep tightly sealed.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. 192 7698 - To Make 1 Gallon
CAT. 191 8895 - To Make 3 1/2 Gallons

Reissued 3/79

0-22a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3500

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer, Part B	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 9/18/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	21 - 26	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.06
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 75
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3
APPEARANCE AND ODOR	Colorless - odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA	N. A.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Direct eye contact causes irritation. SKIN: Causes irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush eyes immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep tightly sealed.

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

Q-23

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

Kodak 3500

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer, Part B | SIZE: To make 3-1/2 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CAI (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	21 - 26	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.06
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 91%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Colorless - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not Applicable

KODAK FLEXICOLOR Developer, Part B Q-2.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 3

EFFECTS OF OVEREXPOSURE

EYES: Direct eye contact causes irritation. **SKIN:** Causes irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes immediately with plenty of water and get medical attenti
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
LOCAL EXHAUST	No	SPECIAL	No
MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep tightly sealed

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help to minimize the possibility of allergic skin reaction.

CAT. 195 3348

Reissued 3/79

Q-24b

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3650

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer, Part C	SIZE: To Make 1 Pint
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/16/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-hydroxyethyl)-2-methylphenylene-		
diamine sulfate	15 - 20	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.08
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 62
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2
APPEARANCE AND ODOR	Reddish-brown, sulfur dioxide odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Liberates sulfur dioxide gas; TLV 5 ppm. (ACGIH, 197

EFFECTS OF OVEREXPOSURE: INHALATION: SO_2 gas causes irritation. EYES: Direct eye contact with the solution causes irritation. SO_2 gas may cause irritation. SKIN: Solution may cause irritation. Repeated skin contact with the solution may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Mineral acids and strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep tightly sealed. Store away from mineral acids in case of spill.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help mini e the possibility of allergic skin reaction.

CAT. 192 7698

Reissued 3/79

Q-25a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3565

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer, Part C	SIZE: To Make 1 Gallon
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/16/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-hydroxyethyl)-2-methylphenylene-		
diamine sulfate	22 - 27	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.10
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 73
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2
APPEARANCE AND ODOR	Reddish-brown, sulfur dioxide odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Liberates sulfur dioxide gas; TLV 5 ppm. (ACGIH, 1977

EFFECTS OF OVEREXPOSURE: INHALATION: SO_2 gas causes irritation. EYES: Direct eye contact with the solution causes irritation. SO_2 gas may cause irritation. SKIN: Solution may cause irritation. Repeated skin contact with the solution may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Mineral acids and strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep tightly sealed. Avoid contact with mineral acids.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. 191 8895

Reissued 3/79

Q-26a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3520

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer, Part C	SIZE: To Make 3-1/2 Gallons
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 9/18/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-hydroxyethyl)-2-methylphenylene-		
diamine sulfate	40 - 45	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.18
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 56
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2
APPEARANCE AND ODOR	Reddish-brown, sulfur dioxide odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Liberates sulfur dioxide gas; TLV 5 ppm. (ACGIH, 1977

EFFECTS OF OVEREXPOSURE INHALATION: SO_2 gas causes irritation. EYES: Direct eye contact with the solution causes irritation. SO_2 gas may cause irritation. SKIN: Solution may cause irritation. Repeated skin contact with the solution may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids and strong alkali

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Keep tightly sealed. Store away from mineral acids in case of spill.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. No. 163 7479 - To Make 75 Gal.
CAT. No. 153 2753 - To Make 25 Gal.

Reissued 9/78

Q-28.20

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4257

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer Replenisher, Part A	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 9/18/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.401
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	57
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	(80 F) 11.15
APPEARANCE AND ODOR	Colorless, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK FLEXICOLOR Developer
Replenisher, Part A

Q-28.20

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY *(Materials to avoid)* Mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with mineral acids.

OTHER PRECAUTIONS

None

CAT. No. 191 9042 - To Make 5 Gals.
CAT. No. 180 5456 - To Make 714 Gals.

Reissued 9/78

Q-28.50

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4240

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer Replenisher, Part A	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/16/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY ($H_2O = 1$)	1.416
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	57
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	(80 F) 11.07
APPEARANCE AND ODOR	Colorless - odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid contact with mineral acids.

OTHER PRECAUTIONS

None

191 9042 - To Make 5 Gals.
153 2753 - To Make 25 Gals.
163 7636 - To Make 75 Gals.
180 5472 - To Make 5000 Gals.

Reissued 3/79

Q-29a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3505

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer Replenisher, Part B	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 9/18/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	21 - 26	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.17
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 75
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3
APPEARANCE AND ODOR	Clear and odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK FLEXICOLOR Developer
Replenisher, Part B

Q-29a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Direct eye contact causes irritation. SKIN: Causes irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush eyes immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

Q-30

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3505

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer Replenisher, Part B	SIZE: To make 25, 75 gals.
CHEMICAL NAME:	
FORMULA: Aqueous solution	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	21 - 26	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.17
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	86
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Colorless - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.0

EFFECTS OF OVEREXPOSURE

EYES: Direct eye contact causes irritation.

SKIN: Causes irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes immediately with plenty of water.

SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with copious amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help to minimize the possibility of allergic skin reaction.

at. No. 180 5472

Q30.60
New 5/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3505

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer Replenisher Part B	SIZE: To Make 5000 Gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL (716) 722-2121	INFORMATION EFFECTIVE AS OF: 5/1/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine sulfate	21 - 26	--------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.17
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	86%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N.A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.0
APPEARANCE AND ODOR	Clear and odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N.A.			
SPECIAL FIRE FIGHTING PROCEDURES	N.A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N.A.			

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Eye contact causes irritation. **SKIN:** Causes irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES **EYES:** Flush eyes immediately with plenty of water and get medical attention. **SKIN:** Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. 191 9042

Reissued 3/79

Q-31a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3496

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer Replenisher, Part C	SIZE: To Make 5 Gallons
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/16/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-hydroxyethyl)-2-methylphenylene-		
diamine sulfate	35 - 40	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.15
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 62
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2.1
APPEARANCE AND ODOR	Amber color and pungent sulfur dioxide odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK FLEXICOLOR Developer
Replenisher, Part C

Q-31a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Liberates sulfur dioxide gas; TLV 5 ppm. (ACGIH, 1977)

EFFECTS OF OVEREXPOSURE INHALATION: SO_2 gas causes irritation. EYES: Direct eye contact with the solution causes irritation. SO_2 gas may cause irritation. SKIN: Solution may cause irritation. Repeated skin contact with the solution may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong alkalis and mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store away from strong alkalis and mineral acids.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

:. 153 2753 - To Make 25 Gals.
:. 163 7636 - To Make 75 Gals.
:. 180 5498 - To Make 5000 Gals.

Reissued 3/79

Q-32a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3513

SECTION I

PRODUCT NAME:	KODAK FLEXICOLOR Developer Replenisher, Part C	SIZE:	Several
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	9/18/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-(N-Ethyl-N-2-hydroxyethyl)-2-methylphenylene-		
diamine sulfate	40 - 45	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.18
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 54
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2
APPEARANCE AND ODOR	Reddish-brown; sulfur dioxide odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK FLEXICOLOR Developer
Replenisher, Part C

Q-32a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Liberates sulfur dioxide gas; TLV 5 ppm. (ACGIH, 1977)

EFFECTS OF OVEREXPOSURE

INHALATION: SO_2 gas causes irritation. EYES: Direct eye contact with the solution causes irritation. SO_2 gas may cause irritation. SKIN: Solution may cause irritation. Repeated skin contact with the solution may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

Mineral acids and strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS

Sulfur dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES

Yes

EYE PROTECTION

Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with mineral acids and alkali.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help min[illegible]ze the possibility of allergic skin reaction.

at. No. 180 5498

Q32.80
New 5/78

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3513

SECTION I

PRODUCT NAME:	KODAK FLEXICOLOR Developer Replenisher Part C	SIZE:	To Make 5000 Gals.
CHEMICAL NAME:			
FORMULA:	Aqueous mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	(716) 722-2121	INFORMATION EFFECTIVE AS OF:	5/1/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-Amino-3-methyl-N-ethyl-N-(B-hydroxyethyl)-	40 - 45	---------
aniline sulfate		

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.18
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	54%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N.A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2
APPEARANCE AND ODOR	Tan-brown; Sulfur dioxide odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N.A.			
SPECIAL FIRE FIGHTING PROCEDURES	N.A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N.A.			

*N.A. - Not Applicable

KODAK FLEXICOLOR Developer Replenisher, Part C

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Liberates sulfur dioxide gas; TLV 5 ppm

EFFECTS OF OVEREXPOSURE INHALATION: SO_2 gas causes irritation. EYES: Contact with the solution causes irritation. SO_2 gas may cause irritation. SKIN: May cause irritation. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Flush eyes immediately with plenty of water and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Mineral acids and strong alkali

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid contact with mineral acids and alkali.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help to minimize the possibility of allergic skin reaction.

Q-33

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3802

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Developer Starter	SIZE: To make 1 qt.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-13-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.241
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	75%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless; no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 9.5

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
LOCAL EXHAUST	No	SPECIAL	No
MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-34

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3587

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Fixer	SIZE: To make 1 pt.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-13-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.361
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	40%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution; no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK FLEXICOLOR Fixer

Q-34

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

a-35

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3587

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Fixer and Replenisher	SIZE: To make 1, 5, 25, 75 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-13-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.361
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	40%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution; no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 6

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Cat. 195 3348 - 1 Pint Kit

Reissued 5/78

Q-36a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3664

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Stabilizer	SIZE: To Make 1 Pint
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 5/2/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Formaldehyde	12 - 17	2 ppm(C)
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.03
VAPOR PRESSURE (mm Hg.)	Approx. 50	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	Approx. 0.68	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 6.5
APPEARANCE AND ODOR	Clear, colorless solution - aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
185 F (85 C) T.C.C.		7.0	73

EXTINGUISHING MEDIA CO_2, Water

SPECIAL FIRE FIGHTING PROCEDURES None

UNUSUAL FIRE AND EXPLOSION HAZARDS None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE ---

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid causes severe eye burns. Vapor is irritating. SKIN: Prolonged or repeated contact causes irritation and may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes. If contact is extensive, shower immediately while removing contaminated clothing and shoes. Call a physician.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	---

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	---

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Portable breathing apparatus or air line respirator for emergency.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

Wash thoroughly after handling.

lt. 174 9183 - To Make 1 Gal.
lt. 169 3894 - To Make 5 Gals.
lt. 174 9902 - To Make 12½ Gals.

Reissued 6/79

Q-37a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10294

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Stabilizer and Replenisher, Part A	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/25/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Formaldehyde	35-40	2 ppm (C)
		**ACGIH, 1978

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	205 - 214 F (96 - 101 C)	SPECIFIC GRAVITY (H_2O=1)	1.08
VAPOR PRESSURE (mm Hg.)	Approx. 49	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	Approx. 0.83	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.5
APPEARANCE AND ODOR	Clear, colorless liquid; strong irritating aldehyde odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
140 F (60 C) (TCC)		7.0	73

EXTINGUISHING MEDIA: Water, CO_2, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid causes severe eye burns. Vapor is irritating. SKIN: Prolonged or repeated contact causes irritation and may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes. If contact is extensive, shower immediately while removing contaminated clothing and shoes. Call a physician.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Portable breathing apparatus or air line respirator for emergency.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

Wash thoroughly after handling.

:. No. 174 9183 - To Make 1 Gal.
:. No. 174 9902 - To Make 12½ Gal.
:. No. 169 3894 - To Make 5 Gal.
:. No. 180 5860 - To Make 75 Gals.

Re-issued 11/78

Q-38a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
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MATERIAL SAFETY DATA SHEET

13821

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR Stabilizer and Replenisher, Part B	SIZE: Several
CHEMICAL NAME: Organosilicone fluid	
FORMULA:	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/25/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 302 F (150 C)	SPECIFIC GRAVITY ($H_2O = 1$)	1.041
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Complete	pH	N. A.
APPEARANCE AND ODOR	Colorless, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
360 F (182 C) (CDC)	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE None assigned.

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid causes irritation.
SKIN: Prolonged or repeated contact may result in skin irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Immediately flush with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		None
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid strong oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition or burning may produce silicon dioxide, carbon monoxide, and/or carbon dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

Wash thoroughly after handling.

CAT. No. 170 8767

Q-39a
REISSUED 4/78

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10001

SECTION I

PRODUCT NAME: KODAK Hardener and Replenisher, C-41V Part A

SIZE: To make 25 gals.

CHEMICAL NAME:

FORMULA: Organic solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 3-15-78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Glacial Acetic Acid	95 - 100	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	245F (118C)	SPECIFIC GRAVITY (H_2O = 1)	1.049
VAPOR PRESSURE (mm Hg.)	11.4 at 20C	PERCENT VOLATILE BY VOLUME (%)	99%
VAPOR DENSITY (AIR = 1)	2.07	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear liquid, strong pungent, vinegar-like odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
103F (39C)		~~6.67 at~~ 139F	~~19.9 at~~ 199F

EXTINGUISHING MEDIA: CO_2 or spray foam

SPECIAL FIRE FIGHTING PROCEDURES
Wear fresh air mask and equipment to avoid contact (rubber gloves, boots, etc.)

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not Applicable

KODAK Hardener and Replenisher, C-41V, Part A Q-39a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH less than 1.5

EFFECTS OF OVEREXPOSURE
INHALATION: Vapor causes irritation. EYES: Vapor causes irritation. Contact with liquid causes severe burns. SKIN: Contact with liquid causes severe burns.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure. EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Alkali, amines, alcohols, heat,

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bicarbonate then flush to sewer with copious amounts of water. See Section VIII for protective equipment. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Neutralize with sodium bicarbonate then flush to sewer with copious amounts of water. See Section VIII for protective equipment. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved organic acid vapor respirator if ventilation is inadequate

VENTILATION				
LOCAL EXHAUST	Yes	SPECIAL	No	
MECHANICAL (general)	Yes	OTHER	No	

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

IPo 6J266A

Q-46

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

14015

SECTION I

PRODUCT NAME: KODAK Hardener and Replenisher, Process C-41V, Part B

SIZE: To make 25 gals.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Aluminum Sulfate	20 - 25	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.31
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	75%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear liquid and odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not Applicable

KODAK Hardener and Replenisher, Process C-41V, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 7

EFFECTS OF OVEREXPOSURE

EYES: Direct eye contact may cause irritation.
SKIN: May cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with copious amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-41

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3762

SECTION I

PRODUCT NAME: KODAK Hardener and Replenisher, Process C-41V, Part C | SIZE: To make 25 gals.

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	None	Lel / Uel

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not Applicable

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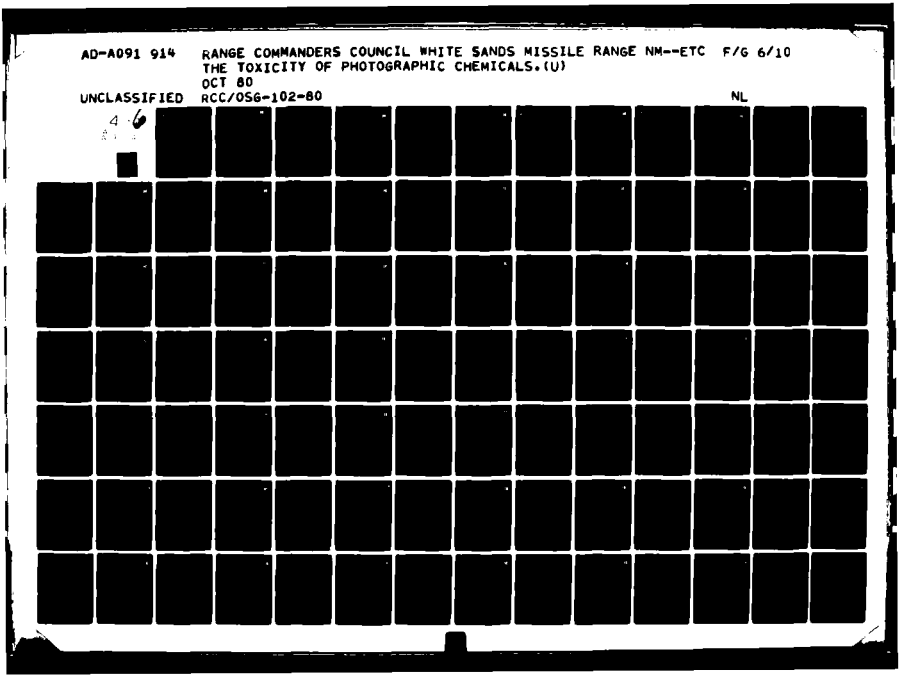

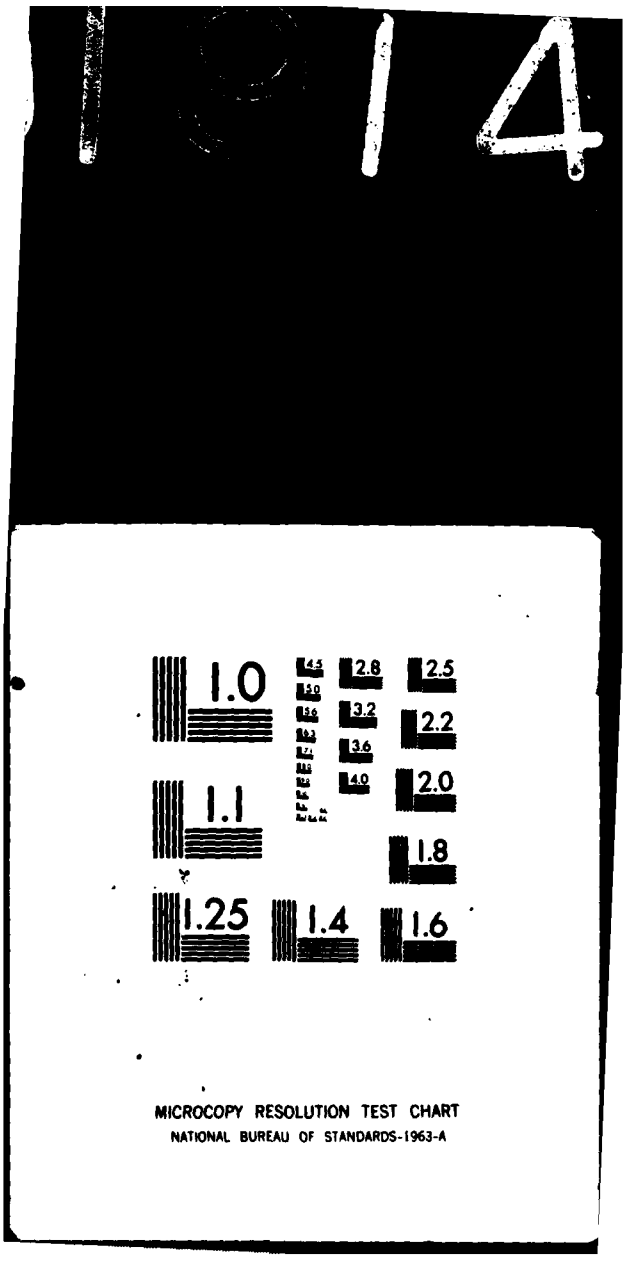
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SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT 170 8882

Reissued 6/79

Q-43a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10294

SECTION I

PRODUCT NAME: KODAK Stabilizer and Replenisher, Process C-41V, Part B	SIZE: To Make 25 Gallons
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 7/29/74

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units) **
Formaldehyde	35-40	2 ppm (C)
		**ACGIH, 1978

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	~~205 - 214 F~~ (96 - 101 C)	SPECIFIC GRAVITY (H_2O=1)	1.08
VAPOR PRESSURE (mm Hg.)	Approx. 49	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	Approx. 0.83	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.5
APPEARANCE AND ODOR	Clear, colorless liquid; strong, irritating aldehyde odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
140 F (60 C) (TCC)		7.0	73

EXTINGUISHING MEDIA: Water, CO_2, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid causes severe eye burns. Vapor is irritating. SKIN: Prolonged or repeated contact causes irritation and may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes. If contact is extensive, shower immediately while removing contaminated clothing and shoes. Call a physician.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Portable breathing apparatus or air line respirator for emergency.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

Wash thoroughly after handling.

Q-44

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3804

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Bleach Replenisher A | SIZE: 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 8-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	5 - 10	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.292
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	60%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution; sharp odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 2

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid may cause irritation.

SKIN: Prolonged or repeated contact may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes immediately with plenty of water and get medical attention.

SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: State and local effluent laws take precedence. Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD: Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-45

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3422

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Bleach Replenisher B | SIZE: 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 10-15-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.29
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	45%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Red brown - slight ammonia odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. = Not Applicable

KODAK FLEXICOLOR AR Bleach Replenisher B

Q-545

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

pH approx. 7

EFFECTS OF OVEREXPOSURE

Acute - Of low toxicity and low hazard to health.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush down drain with H_2O. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush down drain with H_2O. State and local effluent laws take prececence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT

None

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-46

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3738

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Bleach Starter	SIZE: To make 17½ gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-13-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.307
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	58%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution; odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not Applicable

KODAK FLEXICOLOR AR Bleach Starter

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5

EFFECTS OF OVEREXPOSURE
Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES
None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No **EYE PROTECTION** No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None

OTHER PRECAUTIONS

None

Q-47

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3578

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Developer Replenisher A | SIZE: To make 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-2-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.41
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	62%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear solution - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 11.5

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with bisulfate. Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Neutralize with bisulfate. Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES. No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with mineral acids

OTHER PRECAUTIONS

None

Q-48

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3697

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Developer Replenisher B — SIZE: To make 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	20 - 25	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.13
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	87%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear; odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: pH approx. 2.5

EFFECTS OF OVEREXPOSURE

EYES: Direct eye contact causes irritation.

SKIN: Causes irritation. Repeated contact with the skin may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes immediately with plenty of water and get medical attention.

SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Avoid strong alkali

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

Q-49

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3513

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Developer Replenisher C — SIZE: To make 5 gal.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 — INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-Amino-3-methyl-N-ethyl-N-(B-hydroxyethyl)-		
aniline Sulfate	50 - 55	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.15
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	62%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Amber color; sulfur dioxide odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Liberates sulfur dioxide gas. TLV 5 ppm

pH approx. 2.0

EFFECTS OF OVEREXPOSURE INHALATION: SO_2 gas causes irritation. EYES: Direct eye contact with the solution causes irritation. SO_2 gas may cause irritation. SKIN: Solution may cause irritation. Repeated skin contact with the solution may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure.
EYES: Flush eyes immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid strong alkali and mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
After neutralizing with sodium bicarbonate, flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Store away from strong alkalis and mineral acids

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

Q-50

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3587

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Fixer & Replenisher | SIZE: To make 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-13-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.361
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	40%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution; no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK FLEXICOLOR AR Fixer and Replenisher

Q-50

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Q-51

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3708

SECTION I

PRODUCT NAME: KODAK FLEXICOLOR AR Stabilizer and Replenisher | SIZE: 5 gals.

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 7-8-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	12 - 17	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.02
VAPOR PRESSURE (mm Hg.)	Approx. 134	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR = 1)	Approx. 0.67	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless - formaldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
185 F (85 C) TOC		7.0	73

EXTINGUISHING MEDIA: CO_2, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES:

None

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

*N. A. - Not applicable

KODAK FLEXICOLOR AR Stabilizer and Replenisher

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

pH approx. 3.5

EFFECTS OF OVEREXPOSURE INHALATION: Vapor may cause irritation. EYES: Contact with the liquid or vapor may cause irritation. SKIN: Prolonged contact may cause irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure.
EYES: For liquid contact, flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Neutralize with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

Wash thoroughly after handling.

CAT 195 3173

Reissued 6/79

T-1a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10977

SECTION I

PRODUCT NAME: KODAK EA-5 Bleach & Replenisher, Part A	SIZE: To Make 26-1/2 Gallons
CHEMICAL NAME: Sodium Nitrate	
FORMULA: $NaNO_3$	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 10/30/69

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
N. A.*		

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	716 F (380 C) Decomposes	SPECIFIC GRAVITY ($H_2O=1$)	2.26
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	White, odorless powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: Water

SPECIAL FIRE FIGHTING PROCEDURES: Will provide oxygen to a fire. Suffocating type extinguishers will be of little use.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Combustibles

HAZARDOUS DECOMPOSITION PRODUCTS Oxygen and nitrous oxides given off when heated.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up bulk and dispose in landfill. Flush residue to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk and dispose in landfill. Flush residue to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

CAT 195 3173

Reissued 9/79

T-2b

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2557

SECTION I

PRODUCT NAME:	KODAK EA-5 Bleach and Replenisher, Part B	SIZE:	To Make 26 1/2 Gallons
CHEMICAL NAME:			
FORMULA:	Solid Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	10/30/69

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
NONE		

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK EA-5 Bleach and Replenisher, Part B T-2b

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong acids

HAZARDOUS DECOMPOSITION PRODUCTS SO_2 gas

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up bulk and dispose in landfill. Flush residue to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk and dispose in landfill. Flush residue to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

KP-6888 The information herein is believed to be correct as of the date hereof, but is provided without warranty of any kind.

CAT 195 3173 Reissued 9/79

T-3a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

12324

SECTION I

PRODUCT NAME:	KODAK EA-5 Bleach and Replenisher, Part C	SIZE:	To Make 26 1/2 Gallons
CHEMICAL NAME:	Maleic Acid		
FORMULA:	HOOC-CH=CH-COOH		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	10/30/69

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
N. A.*		

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.	SPECIFIC GRAVITY (H_2O=1)	1.59
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	White material - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK EA-5 Bleach and Replenisher, Part C — T-3a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: None

EFFECTS OF OVEREXPOSURE
INHALATION: Dust causes irritation when handling large volumes.
EYES: Contact with the powder causes irritation. SKIN:
Prolonged or repeated contact may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Clean up as much dry material as possible and dispose of by landfill or incinerate. Neutralize with sodium bicarbonate then flush remainder to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD: Clean up as much dry material as possible and dispose of by landfill or incinerate. Neutralize with sodium bicarbonate then flush remainder to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved dust respirator if ventilation is inadequate for large volume handling.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS

None

KP 0683000 The information herein is believed to be correct as of the date hereof, but is provided without warranty of any kind.

CAT 195 3173

Reissued 9/79

T-4a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10958

SECTION I

PRODUCT NAME:	KODAK EA-5 Bleach and Replenisher, Part D	SIZE:	To Make 26 1/2 Gallons
CHEMICAL NAME:	Sodium Hydroxide		
FORMULA:	NaOH		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	10/30/69

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
N. A.*		

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	2534 F (1390 C)	SPECIFIC GRAVITY (H_2O = 1)	2.13
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	Odorless, white powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK EA-5 Bleach and Replenisher, Part D T-4a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 2 mg/m^3 C

EFFECTS OF OVEREXPOSURE: INHALATION: Dust irritating to respiratory system. EYES: Dust irritating to eyes. Powder causes severe caustic burns of the eye. SKIN: Powder can cause caustic burns of the skin, particularly if wet.

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: Remove from exposure. EYES: For direct contact, flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush with plenty of water. If burns occur, get medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk and dispose by landfill or incinerate. Neutralize residue with mineral acid or sodium bicarbonate and flush to sewer with copious amounts of water after flushing sewer of any acids. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD: Sweep up bulk and dispose by landfill or incinerate. Neutralize residue with mineral acid or sodium bicarbonate and flush to sewer with copious amounts of water after flushing sewer of any acids. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved dust respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS: None

KP 6832888 The information herein is believed to be correct as of the date hereof, but is provided without warranty of any kind.

CAT. 195 3116 - To Make 10 Gallons
CAT. 195 3132 - To Make 100 Litres

Reissued 3/79

T-5a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2888

SECTION I

PRODUCT NAME: KODAK EA-5 Color Developer, Part A	SIZE: Several
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 10/30/69

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units) **
Sodium Hydroxide	10 - 15	2 mg/m^3
Ethylenediamine	10 - 15	10 ppm
Benzyl Alcohol	20 - 25	
		**ACGIH, 1978

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.11
VAPOR PRESSURE (mm Hg.)	Approx. 13	PERCENT VOLATILE BY VOLUME (%)	Approx. 50
VAPOR DENSITY (AIR = 1)	Approx. 1.72	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 13
APPEARANCE AND ODOR	Clear, slightly yellow - aromatic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Vapors may be irritating. Susceptible individuals may show asthma-like reaction. EYES: Contact with the liquid causes severe burns. SKIN: Prolonged contact may cause burns. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. If illness occurs, get medical attention. EYES: Flush immediately with plenty of water for 15 minutes and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved organic vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid storing in areas with high temperature.

OTHER PRECAUTIONS

None

T-6

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

14075

SECTION I

PRODUCT NAME: KODAK EA-5 Color Developer, Part B	SIZE: To make 10 gals.
CHEMICAL NAME: Tertiary Butylamine Borane	
FORMULA: $(CH_3)_3CNH_2 \cdot BH_3$	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF 7-8-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Decomposes	SPECIFIC GRAVITY ($H_2O = 1$)	0.87
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White crystalline solid - amine odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N. A.	FLAMMABLE LIMITS Flammable solid	Lel Unknown	Uel
EXTINGUISHING MEDIA	Water spray, CO_2 or dry chemical			

SPECIAL FIRE FIGHTING PROCEDURES

Burns with green flame and produces dense white smoke.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Diborane is liberated with anhydrous acids avoid oxidizers.

*N. A. - Not applicable

KODAK EA-5 Color Developer, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None

EFFECTS OF OVEREXPOSURE INHALATION: The inhalation of excessive dust can cause central nervous system stimulation with convulsions. EYES: Mild irritation. SKIN: Can cause mild irritation of the skin. In solution, can be absorbed through the intact skin in toxic amounts.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure. If illness occurs, get medical attention. EYES: Flush with plenty of water. SKIN: Flush with plenty of water. If illness occurs, get medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE	X	Avoid temperatures above 160 F
	STABLE		

INCOMPATIBILITY (Materials to avoid) Reacts violently with concentrated acids.

HAZARDOUS DECOMPOSITION PRODUCTS Liberates flammable and toxic diborane gas

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Treat with sodium hypochlorite and flush to acid free sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Treat with sodium hypochlorite and flush to acid free sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store away from oxidizing materials and concentrated acids.

OTHER PRECAUTIONS

Keep away from heat.

T-7

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2307

SECTION I

PRODUCT NAME: KODAK EA-5 Color Developer Part C	SIZE: To Make 10 gallons
CHEMICAL NAME:	
FORMULA: solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Trisodium phosphate	78-83	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	N. A.
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	appreciable		
APPEARANCE AND ODOR	white solid, no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	none	FLAMMABLE LIMITS N. A.	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not Applicable

KODAK EA-5 Color Developer Part C

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust is irritating. EYES: Contact with powder is irritating and may cause corneal injury. SKIN: Repeated or prolonged skin contact may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) avoid mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS none

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up and discard as solid waste. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD Sweep up and discard as solid waste. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) approved dust respirator, if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	NO	SPECIAL	NO
	MECHANICAL (general)	YES	OTHER	NO

PROTECTIVE GLOVES yes EYE PROTECTION yes

OTHER PROTECTIVE EQUIPMENT no

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid storage near strong mineral acids

OTHER PRECAUTIONS

T-8

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2210

SECTION I

PRODUCT NAME: KODAK EA-5 Color Developer, Part D | SIZE: To make 10 gals.

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-Amino-N-ethyl-N-(B-methanesulfonamidoethyl)-m-		
toluidine Sesquisulfate Monohydrate	85 - 90	

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	Tan color - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		N. A.		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK EA-5 Color Developer, Part D

F8

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

INHALATION: Dust irritating. EYES: Contact with powder is irritating. SKIN: Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Wash with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid contact with strong alkalis

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up and discard. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up and discard. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation inadequate

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from strong bases.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. 195 3132

Reissued 3/79

T-8.1b

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2937

SECTION I

PRODUCT NAME:	KODAK EA-5 Color Developer Replenisher, Part A	SIZE:	To Make 26-1/2 Gals.
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	10/30/69

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units) **
Benzyl Alcohol	20 - 25	-----
Sodium Hydroxide	15 - 20	2 mg/m^3
Ethylenediamine	10 - 15	-----
		**ACGIH, 1978

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.2
VAPOR PRESSURE (mm Hg.)	Approx. 13	PERCENT VOLATILE BY VOLUME (%)	Approx. 50
VAPOR DENSITY (AIR = 1)	Approx. 1.79	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 12
APPEARANCE AND ODOR	Colorless solution - odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA	N. A.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

*N. A. - Not applicable.

A-303

KODAK EA-5 Color Developer Replenisher,
Part A

T-8.1b

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Vapor is irritating. EYES: Direct eye contact causes severe burns. SKIN: Causes severe burns. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved organic vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in dry, tightly sealed containers.
Avoid contact with strong acids.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

T-9

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

14075

SECTION I

PRODUCT NAME: KODAK EA-5 Color Developer Replenisher, Part B	SIZE: To make 26-1/2 gal.
CHEMICAL NAME: Tertiary Butylamine Borane	
FORMULA: $(CH_3)_3CNH_2 \cdot BH_3$	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 7-8-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Decomp.	SPECIFIC GRAVITY ($H_2O = 1$)	0.87
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White crystalline solid, amine odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
N. A.	Flammable solid	Unknown	

EXTINGUISHING MEDIA: Water, CO_2, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES

ırns with green flame, produces dense white smoke.

UNUSUAL FIRE AND EXPLOSION HAZARDS

iborane is liberate with anhydrous acids and oxidizers.

*N. A. - Not applicable

KODAK EA-5 Color Developer Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None

EFFECTS OF OVEREXPOSURE INHALATION: The inhalation of excessive dust can cause central nervous system stimulation with convulsions. EYES: Mild irritation. SKIN: Can cause mild irritation to the skin. In solution, can be absorbed through the intact skin in toxic amounts.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure. If illness occurs, get medical attention. EYES: Flush with plenty of water. SKIN: Flush with plenty of water. If illness occurs, get medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE	X	Avoid temperatures above 160 F
	STABLE		

INCOMPATIBILITY (Materials to avoid) Reacts violently with concentrated acids

HAZARDOUS DECOMPOSITION PRODUCTS Liberates flammable and toxic diborane gas

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Treat with sodium hypochlorite and flush to acid free sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Treat with sodium hypochlorite and flush to acid free sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in tightly sealed containers away from oxidants and concentrated acids.

OTHER PRECAUTIONS

Keep away from heat.

T-10

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2307

SECTION I

PRODUCT NAME: KODAK EA-5 Color Developer Replenisher, Part C	SIZE: To make 26-1/2 gals.
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Trisodium Phosphate	Approx. 78%	

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White crystalline powder, no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

A-307

KODAK EA-5 Color Developer Replenisher, Part C

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Dust irritating. EYES: Contact with powder irritating and may cause corneal injury. SKIN: Repeated or prolonged skin contact may be irritating.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up as much as possible and dispose in disposal area. Flush the rest with copious amounts of water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up as much as possible and dispose in disposal area. Flush the rest with copious amounts of water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: None

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep stored in dry, tightly closed container.

OTHER PRECAUTIONS

None

KPo 65266A

T-11

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2210

SECTION I

PRODUCT NAME: KODAK EA-5 Color Developer Replenisher, Part D	SIZE: To make 26-1/2 gal.
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-Amino-N-ethyl-N-(B-methanesulfonamidoethyl)-m-toluidine Sesquisulfate Monohydrate	85 - 90	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	Brown-yellow in color, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable.

KODAK EA-5 Color Developer Replenisher, Part D

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

INHALATION: Dust irritating. EYES: Contact with the powder is irritating. SKIN: Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Wash with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid): Strong alkali

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up as much as possible and dispose in a chemical disposal area. Flush area with copious amounts of water. See Section VIII for protective equipment. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): An approved dust respirator if ventilation inadequate

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep dry, in tightly sealed containers. Keep away from strong alkali.

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

T-12

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2441

SECTION I.

PRODUCT NAME: KODAK EA-5 First Developer, Part A | SIZE: To make 10 gals.

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroquinone	5 - 10	2 mg/m^3
Phenidone	Less than 5	-------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	Odorless - white powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK EA-5 First Developer, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust causes irritation. EYES: Contact with the powder causes irritation. Dust may cause irritation. SKIN: Prolonged contact with the powder may cause irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Could liberate CO , sulfur dioxide gases

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk and flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up bulk and flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3284

SECTION I

PRODUCT NAME: KODAK EA-5 First Developer, Part B | SIZE: To make 10 gals.

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.39
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	56%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK EA-5 First Developer, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 9

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

T-14

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3302

SECTION I

PRODUCT NAME: KODAK EA-5 First Developer, Part C	SIZE: To make 10 gals.
CHEMICAL NAME:	
FORMULA: Aqueous solution	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	Approx. 1.11
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 98%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, slightly sweet odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK EA-5 First Developer, Part C

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.0

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

T-15

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3988

SECTION I

PRODUCT NAME: KODAK EA-5 First Developer Replenisher, Part A	SIZE: To make 26½ gals.
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroquinone	5 - 10	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White solid, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		N. A.		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK EA-5 First Developer Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust may be irritating. EYES: Contact with the powder may be irritating. SKIN: May cause irritation. Repeated contact with the skin may cause allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up and discard as solid waste. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up and discard as solid waste. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Approved dust respirator if ventilation is inadequate

VENTILATION			SPECIAL	
	LOCAL EXHAUST	Yes		
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

T-16

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2842

SECTION I

PRODUCT NAME: KODAK EA-5 First Developer Replenisher, Part B	SIZE: To make 26-1/2 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Sodium Hydroxide	10 - 15	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.34
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	60%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear white		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel None	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK EA-5 First Developer Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH greater than 13

EFFECTS OF OVEREXPOSURE
Acute - Direct contact with skin or eyes causes severe burns.

EMERGENCY AND FIRST AID PROCEDURES
In case of contact with skin or eyes, immediately flush with plenty of water for at least 15 minutes; for eyes, get additional medical attention.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid storing with strong acids

OTHER PRECAUTIONS

Part C of CAT. No. 195 3058

T-16.1
New 2/77

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3302

SECTION I

PRODUCT NAME: KODAK EA-5 First Developer Replenisher, Part C | SIZE: To make 100 Liters

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 12-15-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O = 1)	1.108
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 99%
VAPOR DENSITY (AIR = 1)	Approx. 0.6	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
No flash to boiling point	None		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

KODAK EA-5 First Developer Replenisher, Part C

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

T-17

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2613

SECTION I

PRODUCT NAME: KODAK EA-5 First and Second Stop Bath and Replenisher | SIZE: To make 26-1/2 gals.

CHEMICAL NAME:

FORMULA: Liquid Mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic Acid	68	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY ($H_2O = 1$)	1.11
VAPOR PRESSURE (mm Hg.)	Approx. 32	PERCENT VOLATILE BY VOLUME (%)	92%
VAPOR DENSITY (AIR = 1)	Approx. 1.2	EVAPORATION RATE (_____ = 1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear solution, strong vinegar odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS 135 - 156	Lel	Uel

EXTINGUISHING MEDIA: Water, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not applicable

KODAK EA-5 First and Second Stop Bath and Replenisher

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.5

EFFECTS OF OVEREXPOSURE

Acute - Direct contact with skin or eyes may cause burns. Vapor irritating.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES

In case of skin or eye contact, flush immediately with plenty of water; for eyes, get additional medical attention.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wash with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Wash with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with bases. Keep stored in tightly sealed containers.

OTHER PRECAUTIONS

None

T-16

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

0798

SECTION I

PRODUCT NAME: KODAK EA-5 Fixer & Replenisher, Part A | SIZE: To make 26½ gals.

CHEMICAL NAME: N. A.*

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 10-21-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O = 1)	1.35
VAPOR PRESSURE (mm Hg.)	Approx. 32	PERCENT VOLATILE BY VOLUME (%)	Approx. 67%
VAPOR DENSITY (AIR = 1)	Approx. 0.7	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear to slightly yellow - acid odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: Non-flammable

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not applicable

KODAK EA-5 Fixer and Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.0

EFFECTS OF OVEREXPOSURE

Of low acute toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush down sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush down sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) None

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

T-19

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

11182

SECTION I

PRODUCT NAME: KODAK EA-5 Fixer and Replenisher, Part B	SIZE: To make 26-1/2 gals.
CHEMICAL NAME:	
FORMULA: Solid	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 12-22-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	1.12
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White, odorless powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

A-327

KODAK EA-5 Fixer and Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Of low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up and dispose in a chemical waste area. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up and dispose in a chemical waste area. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

T-20

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2566

SECTION I

PRODUCT NAME: KODAK EA-5 Neutralizer and Replenisher, Part A	SIZE: To make 26½ gals.
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK EA-5 Neutralizer and Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk and flush to sewer any residue with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk and flush to sewer any residue with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

KPo 65766A

T-21

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2504

SECTION I

PRODUCT NAME: KODAK EA-5 Neutralizer and Replenisher, Part B | SIZE: To make 26½ gals.

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	25 - 30	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK EA-5 Neutralizer and Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust causes irritation. EYES: Contact with the powder causes irritation. Dust is irritating. SKIN: Prolonged contact with the powder may cause irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk and flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up bulk and flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. No. 128 4702

T-22a
REISSUED 2/78

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

4071

SECTION I

PRODUCT NAME: KODAK EA-5 Prehardener & Replenisher, Part A	SIZE: To make 50 Litres
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-27-78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212F (100C)	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.*	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N. A.	FLAMMABLE LIMITS	Lel	Uel
		N. A		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES:

None

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

*N. A. - Not applicable

KODAK EA-5 Prehardener and Replenisher, Part A T-22a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up and dispose of by landfill or incineration. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up and dispose of by landfill or incineration.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store away from moisture

OTHER PRECAUTIONS

None

T-23

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10522

SECTION I

PRODUCT NAME: KODAK EA-5 Prehardener and Replenisher, Part B	SIZE: To make 50 Liters
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 7-19-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O = 1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White crystal - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

:ODAK EA-5 Prehardener and Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk. Dispose by incineration or landfill. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk. Dispose by incineration or landfill. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 153 3447

T-23.1a
REISSUED 5

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MATERIAL SAFETY DATA SHEET

4075

SECTION I

PRODUCT NAME: KODAK EA-5 Prehardener and Replenisher, Part C

SIZE: To make 50 Liters

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 2-27-78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	25-30	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.06
VAPOR PRESSURE (mm Hg.)	Approx 54	PERCENT VOLATILE BY VOLUME (%)	98%
VAPOR DENSITY (AIR=1)	Approx. 0.76	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless, aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
204 F (96 C) Open Cup		7.0	73

EXTINGUISHING MEDIA CO_2

SPECIAL FIRE FIGHTING PROCEDURES

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not applicable

KODAK EA-5 Prehardener and Replenisher, Part C 7-23.1a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 3.5

EFFECTS OF OVEREXPOSURE
INHALATION: Vapor causes irritation.
EYES: Contact with the liquid or vapor causes irritation.
SKIN: Liquid is irritating. Repeated contact may cause allergic skin reaction

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure.
EYES: For liquid contact, immediately flush with plenty of water for at least 15 minutes and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

Wash thoroughly after handling.

Cat. 185 5501 Reissued 5/78

T-24a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3303

SECTION I

PRODUCT NAME: KODAK EA-5 Stabilizer and Replenisher | SIZE: To Make 5 Gallons

CHEMICAL NAME:

FORMULA: Aqueous Mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: 716-722-2121 | INFORMATION EFFECTIVE AS OF: 5/2/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Formaldehyde	30 - 35	2 ppm(C)
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 200 F (93.3 C)	SPECIFIC GRAVITY ($H_2O=1$)	1.03
VAPOR PRESSURE (mm Hg.)	Approx. 50	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	Approx. 0.56	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.3
APPEARANCE AND ODOR	Clear, colorless - strong aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
198 (92 C) T.C.C.		7.0	73

EXTINGUISHING MEDIA: Foam, CO_2, water, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: Noxious aldehyde fumes

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE ---

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid causes severe eye burns. Vapor is irritating. SKIN: Prolonged or repeated contact causes irritation and may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes. If contact is extensive, shower immediately while removing contaminated clothing and shoes. Call a physician.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		---
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	---
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Portable breathing apparatus or air line respirator for emergency.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

Wash thoroughly after handling.

CAT No. 139 5888

New 12/78

EASTMAN KODAK COMPANY
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V-0.5C
14059

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME	KODAK Bleach Accelerator	SIZE	10 Pounds
CHEMICAL NAME	5 - amino - 1, 3, 4 - thiadiazole - 2 - thiol		
FORMULA	Solid		
MANUFACTURER	EASTMAN KODAK COMPANY		
ADDRESS	343 STATE STREET, ROCHESTER, NEW YORK 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL	(716) 458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL	(716) 722-2121	INFORMATION EFFECTIVE AS OF	6/9/77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F)	NA	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (=1)	NA
SOLUBILITY IN WATER	Moderate	pH	NA
APPEARANCE AND ODOR	Slightly yellow, fine powder, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	NA			
SPECIAL FIRE-FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

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*NA - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

None assigned

EFFECTS OF OVEREXPOSURE

INHALATION: Dust can be absorbed through the respiratory or G.I. tract and may act as an anti-thyroid agent. **EYES:** Contact with the dust or powder causes irritation. **SKIN:** Prolonged or repeated contact may cause irritation.

EMERGENCY AND FIRST-AID PROCEDURES

INHALATION: Remove from exposure. **EYES:** Immediately flush with plenty of water and get medical attention. **SKIN:** Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
	UNSTABLE	
	STABLE X	

INCOMPATIBILITY (Materials to avoid): None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk and incinerate. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk and incinerate. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type): An approved dust respirator if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep dry.

OTHER PRECAUTIONS

None

V-1

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

A2507

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3/VNF-1 Bleach and Replenisher, Part A

SIZE: To make 100 Liters

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK ME-4/ECO-3/VNF-1 Bleach and Replenisher, Part A V-1

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk and flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk and flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 140 1520 Reissued 11/78

V-2a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

13611

SECTION I

PRODUCT NAME:	KODAK ME-4/ECO-3/VNF-1 Bleach and Replenisher, Part B	SIZE:	To Make 100 Liters
CHEMICAL NAME:			
FORMULA:	Non-Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	3/3/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	Approx. 1.09
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Less than 1%
VAPOR DENSITY (AIR=1)	Negligible	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Appreciable	pH	Approx. 7.0
APPEARANCE AND ODOR	Thick, white, waxy liquid, slight odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
510 F (266 C) COC		1.1	6.9

EXTINGUISHING MEDIA: Water, dry chemical, CO_2.

SPECIAL FIRE FIGHTING PROCEDURES: Addition of water will reduce burning rate.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Heat

HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition may produce carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

CAT. 188 8742 Reissued 3/79

V-3a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3119

SECTION I

PRODUCT NAME:	KODAK ME-4/ECO-3/VNF-1/RVNP Color Developer, Part A	SIZE:	To Make 100 Litres
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Sodium Hydroxide	10 - 15	2 mg/m^3
Ethylenediamine	10 - 15	10 ppm
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.23
VAPOR PRESSURE (mm Hg.)	Approx. 13	PERCENT VOLATILE BY VOLUME (%)	Approx. 95
VAPOR DENSITY (AIR=1)	Approx. 1.65	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 13
APPEARANCE AND ODOR	Slight yellow liquid - slight odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Vapors may be irritating. Susceptible individuals may show asthma-like reaction. EYES: Contact with the liquid causes severe burns. SKIN: Prolonged contact may cause burns. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. If illness occurs, get medical attention. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium bisulfate. Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD Neutralize with sodium bisulfate. Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved organic vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

V-4

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10244

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3/VNF-1 Color Developer, Part A-1 | SIZE: To make 100 Liters

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-17-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY ($H_2O=1$)	1.4 at 25 C
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	60%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear to pale yellow liquid - faint odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		N. A.		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK ME-4/ECO-3/VNF-1 Color Developer, Part A-1

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None appear specifically indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Wash with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Wash with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No **EYE PROTECTION** No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers.

OTHER PRECAUTIONS

None

Cat. No. 188 8742

Reissued 11/78

V-5a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

14075

SECTION I

PRODUCT NAME:	KODAK ME-4/ECO-3/VNF-1/RVNP Color Developer, Part B	SIZE:	To Make 100 Liters
CHEMICAL NAME:	Tertiary Butylamine Borane		
FORMULA:	$(CH_3)_3CNH_2 \cdot BH_3$		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Decomposition	SPECIFIC GRAVITY (H_2O=1)	0.87
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.*	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	White crystalline solid, amine odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
---	Flammable Solid	Unknown	

EXTINGUISHING MEDIA	Water spray, carbon dioxide, dry chemical extinguishers.
SPECIAL FIRE FIGHTING PROCEDURES	Work upwind (if possible) to avoid dense white smoke. Burns with a green flame.
UNUSUAL FIRE AND EXPLOSION HAZARDS	Diborane is liberated by contact with anhydrous acids. Hazardous with oxidizers.

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE None

EFFECTS OF OVEREXPOSURE INHALATION: The inhalation of excessive dust can cause central nervous system stimulation with convulsions. EYES: Mild irritation. SKIN: Can cause mild irritation to the skin. In solution, can be absorbed through the intact skin in toxic amounts.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. If illness occurs, get medical attention. EYES: Flush with plenty of water. SKIN: Flush with plen of water. If illness occurs, get medical attention.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE	X	**CONDITIONS TO AVOID** Avoid temperatures greater than 160 F.
	STABLE		

INCOMPATIBILITY (Materials to avoid) Avoid concentrated acids - violent reaction.

HAZARDOUS DECOMPOSITION PRODUCTS Flammable and toxic gas (diborane) when in contact with concentrated acids.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Treat with sodium hypochlorite and flush to acid free sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Treat with sodium hypochlorite and flush to acid free sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate.

VENTILATION	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store in cool, dry place. Keep away from oxidizing agents. Keep away from heat, sparks, open flame. Keep away from untrained, uninformed personnel.

OTHER PRECAUTIONS

None

CAT. 188 8742

Reissued 3/79

V-6a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2338

SECTION I

PRODUCT NAME:	KODAK ME-4/ECO-3/VNF-1/RVNP Color Developer, Part C	SIZE:	To Make 100 Litres
CHEMICAL NAME:			
FORMULA:	Solid Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Trisodium Phosphate	80 - 85	---

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	White color, no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA	N. A.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust irritating. EYES: Contact with powder is irritating and may cause corneal injury. SKIN: Repeated or prolonged contact with skin may be irritating.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water and get medical attention. SKIN: Flush with water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS SO_2 can be liberated with strong acids (mineral).

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Keep stored in tightly sealed containers.

OTHER PRECAUTIONS

None

CAT No. 188 8742

Reissued 12/78

EASTMAN KODAK COMPANY
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V-7a
2210

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME	KODAK ME-4/ECO-3/VNF-1/RVNP Color Developer, Part D	SIZE	To make 100 Litres
CHEMICAL NAME			
FORMULA	Solid mixture		
MANUFACTURER	EASTMAN KODAK COMPANY		
ADDRESS	343 STATE STREET, ROCHESTER, NEW YORK 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL	(716) 458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL	(716) 722-2121	INFORMATION EFFECTIVE AS OF	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units)
4-(N-Ethyl-N-2-methanesulfonylaminoethyl)-2-		
methylphenylenediamine Sesquisulfate Monohydrate	85 - 90	---

SECTION III PHYSICAL DATA

BOILING POINT (°F)	NA*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (=1)	NA
SOLUBILITY IN WATER	Appreciable	pH	NA
APPEARANCE AND ODOR	Tan color - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS	None	Lel	Uel
EXTINGUISHING MEDIA	NA				
SPECIAL FIRE-FIGHTING PROCEDURES	None				
UNUSUAL FIRE AND EXPLOSION HAZARDS	None				

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*NA - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

INHALATION: Dust is irritating. EYES: Contact with the powder is irritating. SKIN: Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST-AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Wash with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE X	

INCOMPATIBILITY (Materials to avoid): Avoid strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up as much as possible. When handling, wear rubber gloves and dust mask. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type): An approved dust respirator where dust exposure is likely

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT: As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

OTHER PRECAUTIONS

Read label on container. The routine use of a non-alkaline (acid)-type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT. 188 8825 - To Make 100 Litres
CAT. 188 8965 - To Make 50 Litres

Reissued 3/79

V-8a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3912

SECTION I

PRODUCT NAME:	KODAK ME-4/ECO-3/VNF-1 RVNP Color Developer Replenisher, Part A	SIZE:	Several
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units) **
Sodium Hydroxide	15 - 20	2 mg/m^3
Ethylenediamine	10 - 15	10 ppm
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.23
VAPOR PRESSURE (mm Hg.)	Approx. 13	PERCENT VOLATILE BY VOLUME (%)	Approx. 90
VAPOR DENSITY (AIR=1)	Approx. 1.67	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 13
APPEARANCE AND ODOR	Slight yellow, slight odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
219 F (104 C) TOC None TCC	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Vapor may be irritating. Susceptible individuals may show asthma-like reaction. EYES: Highly caustic solution. Causes severe eye burns. SKIN: May cause skin burns. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. If illness occurs, get medical attention. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong acids

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium bisulfate. Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD Neutralize with sodium bisulfate. Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved organic vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

V-9

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10244

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part A-1 | SIZE: To make 50, 100 Litres

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext.85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-17-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212	SPECIFIC GRAVITY (H_2O=1)	1.40 @ 25 C
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	60%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear to pale yellow liquid - slight odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part A-1

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low toxicity and low hazard to health.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Wash with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Wash with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No **EYE PROTECTION** No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep in tightly sealed containers.

OTHER PRECAUTIONS

None

V-10

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

14075

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part B

SIZE: To make 50, 100 Litres

CHEMICAL NAME: Tertiary butylamine borane

FORMULA: $(CH_3)_3CNH_2 \cdot BH_3$

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 7-8-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Decomposes	SPECIFIC GRAVITY (H_2O=1)	0.87
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White crystalline solid, amine odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
	Flammable solid	~~Unknown~~	~~Unknown~~

EXTINGUISHING MEDIA: Water spray, CO_2, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES:
Work upwind to avoid dense white smoke. Burns with a green flame.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Diborane is liberated by contact with anhydrous acids. Hazardous with ~~oxidizers~~.

*N. A. - Not applicable

KODAK ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part B V-1.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None

EFFECTS OF OVEREXPOSURE INHALATION: The inhalation of excessive dust can cause central nervous system stimulation with convulsions. EYES: Mild irritatic SKIN: Can cause mild irritation to the skin. In solution, can be absorbed through the intact skin in toxic amounts.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. If illness occurs, get medical attention. EYES: Flush with plenty of water. SKIN: Flush with plenty of water. If illness occurs, get medical attentior

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE	X	Avoid temperatures greater than 160 F
	STABLE		

INCOMPATIBILITY (Materials to avoid) Avoid concentrated acids - violent reactions

HAZARDOUS DECOMPOSITION PRODUCTS Flammable and toxic gas (diborane) when in contact with concentrated acids

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Treat with sodium hypochlorite and flush to acid free sew with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Treat with sodium hypochlorite and flush to acid free sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Store in cool, dry place. Keep away from oxidizing agents. Keep away from heat, sparks, open flame. Keep away from untrained, uninformed person

OTHER PRECAUTIONS

N. A.

V-11

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2338

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part C | SIZE: To make 50, 100 Litres

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 11-17-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Trisodium Phosphate	75 - 80	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY ($H_2O = 1$)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	N. A.	EVAPORATION RATE (_____ = 1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White color, no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	N. A.		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

AD-A091 914 RANGE COMMANDERS COUNCIL WHITE SANDS MISSILE RANGE NM--ETC F/G 6/10
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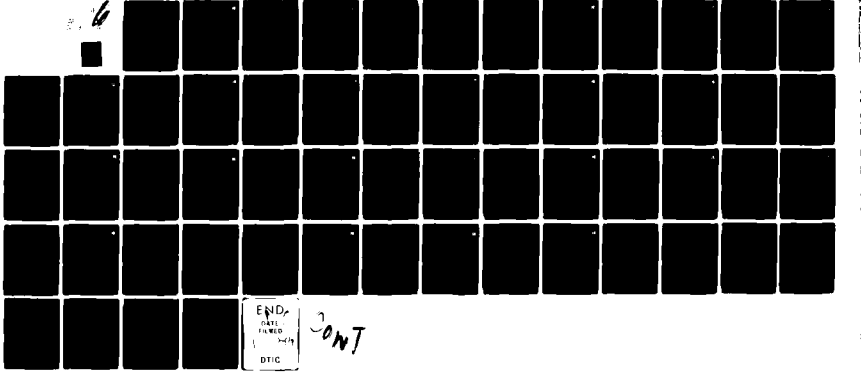

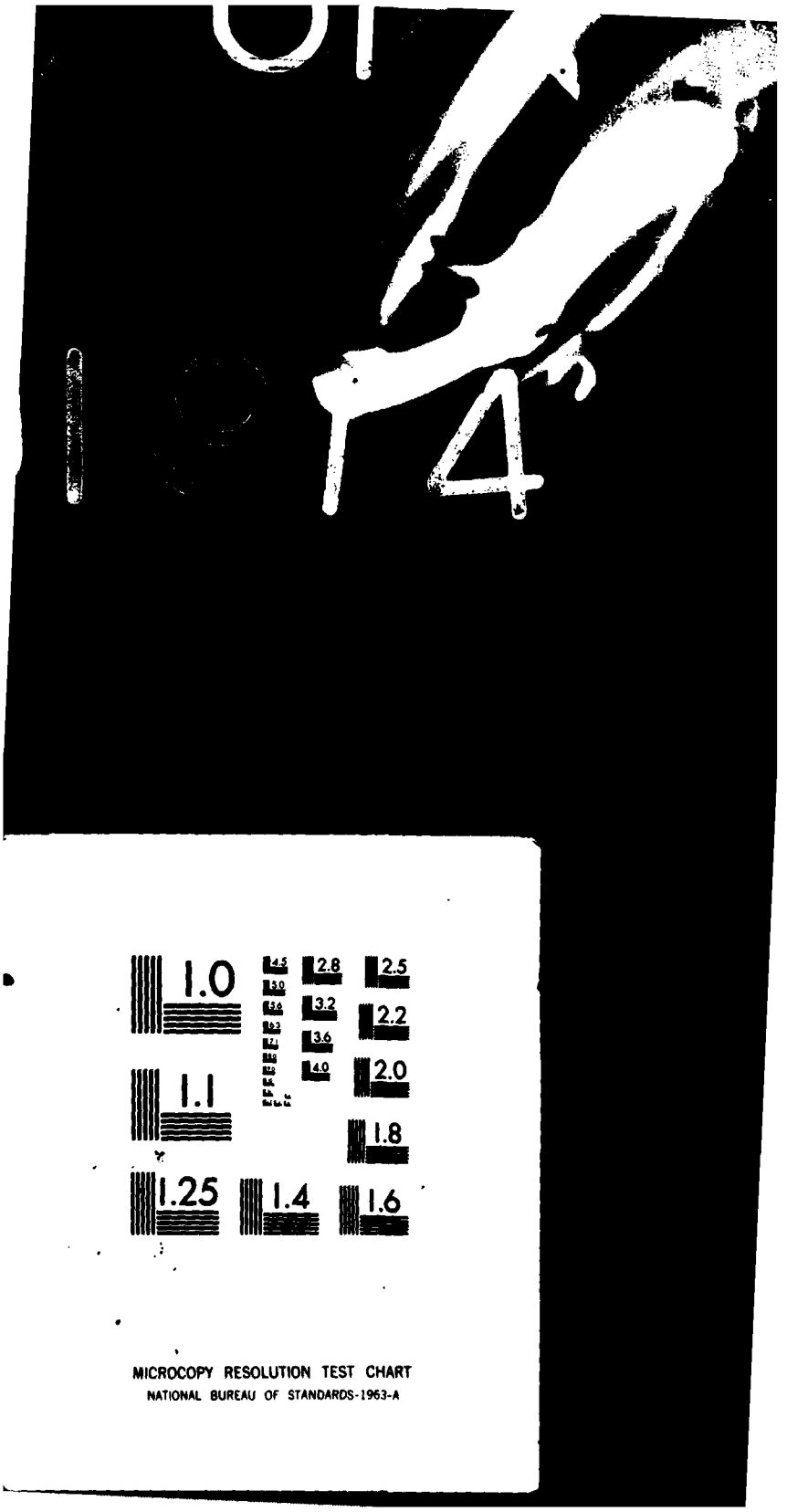

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KODAK ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part C

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Dust irritating. EYES: Contact with powder irritating and may cause corneal injury. SKIN: Repeated or prolonged contact with skin may be irritating.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Avoid contact with mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS SO_2 can be liberated with strong mineral acids

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush with copious amounts of water.

WASTE DISPOSAL METHOD
Flush with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES No EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep stored in tightly sealed containers.

OTHER PRECAUTIONS

None

V-12

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2210

SECTION I

PRODUCT NAME: KODAK ME-4/ECU-3/VNF-1 Color Developer Replenisher, Part D

SIZE: To make 50, 100 Litres

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 11-17-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
4-Amino-N-ethyl-N-(B-methanesulfonamidoethyl)-m-		
toluidine sesquisulfate Monohydrate	85-90	

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	Slight yellow - pink powder; slight odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		N. A.		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK ME-4/ECO-3/VNF-1 Color Developer Replenisher, Part D

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Dust irritating. EYES: Contact with the powder is irritating. SKIN: Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Wash with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Flush with copious amounts of water.

WASTE DISPOSAL METHOD
Flush with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in tightly closed containers.

OTHER PRECAUTIONS
Read label on container. The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

V-13

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3321

SECTION I

PRODUCT NAME: KODAK ECO-3 Film Backing Removal Solution	SIZE: To make 50 Liters
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Potassium Carbonate	35 - 40	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F	SPECIFIC GRAVITY (H_2O=1)	1.38
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	62%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	White liquid - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK ECO-3 Film-Backing Removal Solution

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 12.5

EFFECTS OF OVEREXPOSURE
Acute - Direct contact with skin or eyes may cause burns.
Chronic - None anticipated.

EMERGENCY AND FIRST AID PROCEDURES
In case of skin or eye contact, flush immediately with plenty of water for at least 15 minutes; for eyes, get additional medical attention.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong acids

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium bisulfate then flush with water to sewer. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Neutralize with sodium bisulfate then flush with water to sewer. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT
No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Do not store in contact with strong acids.

OTHER PRECAUTIONS
None

V-14

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2437

SECTION I

PRODUCT NAME: KODAK ECO-3 First Developer, Part A | SIZE: To make 100 Liters

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroquinone	Less than 5	2 mg/m^3
Phenidone	Less than 5	-------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White odorless powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	None			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. - Not applicable

KODAK ECO-3 First Developer, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
INHALATION: Dust causes irritation. EYES: Contact with the powder causes irritation. Dust may cause irritation. SKIN: Prolonged contact with the powder may cause irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure.
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Strong mineral acids could liberate CO_2, sulfur dioxide gases

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up bulk. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up bulk. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

V-15

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

2659

SECTION I

PRODUCT NAME: KODAK ECO-3 First Developer, Part B | SIZE: To make 100 Liters

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-17-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.24
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 65
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK ECO-3 First Developer, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 6

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT No. 149 3873

Reissued 12/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

V-16a
3946

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME	KODAK ME-4/VNF-1/RVNP First Developer, Part A	SIZE	To make 100 Litres
CHEMICAL NAME			
FORMULA	Solid mixture		
MANUFACTURER	EASTMAN KODAK COMPANY		
ADDRESS	343 STATE STREET, ROCHESTER, NEW YORK 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL	(716) 458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL	(716) 722-2121	INFORMATION EFFECTIVE AS OF	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units)**
Hydroquinone	5 - 10	2 mg/m^3
Phenidone	Less than 5	---
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F)	NA*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (=1)	NA
SOLUBILITY IN WATER	Appreciable	pH	NA
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS	None	Lel	Uel
EXTINGUISHING MEDIA	NA				
SPECIAL FIRE-FIGHTING PROCEDURES	None				
UNUSUAL FIRE AND EXPLOSION HAZARDS	None				

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*NA - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

INHALATION: Dust causes irritation. EYES: Contact with the powder causes irritation. Long-term eye exposures to excessive dust may result in corneal damage. SKIN: Prolonged contact may cause irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST-AID PROCEDURES

INHALATION: Remove from exposure.

EYES: Flush immediately with plenty of water and get medical attention.

SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE X	

INCOMPATIBILITY (Materials to avoid): **Strong mineral acids**

HAZARDOUS DECOMPOSITION PRODUCTS: **CO_2, sulfur dioxide gas**

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: **Flush to sewer with copious amounts of water. State and local effluent laws take precedence.**

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type): **An approved dust respirator if ventilation is inadequate**

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT: **As necessary to prevent skin contact**

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: **None**

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid)-type hand cleaner will help minimize the possibility of allergic skin reaction.

Part B of CAT. No. 149 3873 Reissued 11/78

V-17a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2894

SECTION I

PRODUCT NAME:	KODAK ME-4/VNF-1/RVNP First Developer, Part B	SIZE:	To Make 100 Liters
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.386
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	62
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 6.0
APPEARANCE AND ODOR	Clear colorless solution - no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No **EYE PROTECTION** No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

V-19

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
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MATERIAL SAFETY DATA SHEET

2442

SECTION I

PRODUCT NAME: KODAK ECO-3 First Developer Replenisher, Part A	SIZE: To make 100 Liters
CHEMICAL NAME:	
FORMULA: Solid mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 11-18-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroquinone	Less than 5	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White solid - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS N. A.	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	N. A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N. A.			

*N. A. = Not applicable

KODAK ECO-3 First Developer Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust may be irritating. EYES: Contact wit the powder may be irritating. SKIN: May cause skin irritation. Repeated skin contact may cause allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up and discard as solid waste. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up and discard as solid waste. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Approved dust respirator, if ventilation is inadequate

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes **EYE PROTECTION** Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS
The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

V-19

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3665

SECTION I

PRODUCT NAME:	KODAK ECO-3 First Developer Replenisher, Part B	SIZE:	To make 100 Liters

CHEMICAL NAME:

FORMULA: Aqueous mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 INFORMATION EFFECTIVE AS OF: 12-9-75

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Sodium Hydroxide	5 - 10	2 mg/m^3

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.38
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	51%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N. A.

*N. A. - Not applicable

KODAK ECO-3 First Developer Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 13.0

EFFECTS OF OVEREXPOSURE
EYES: Direct eye contact causes burns.
SKIN: May cause skin irritation.

EMERGENCY AND FIRST AID PROCEDURES
EYES: Flush immediately with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in tightly sealed containers.

OTHER PRECAUTIONS
None

CAT No. 149 3899 - To Make 100 Litres
CAT No. 196 0756 - To Make 50 Litres

Reissued 12/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

V-20a
3988

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME	KODAK ME-4/VNF-1/RVNP First Developer Replenisher, Part A	SIZE	Several
CHEMICAL NAME			
FORMULA	Solid mixture		
MANUFACTURER	EASTMAN KODAK COMPANY		
ADDRESS	343 STATE STREET, ROCHESTER, NEW YORK 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL	(716) 458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL	(716) 722-2121	INFORMATION EFFECTIVE AS OF	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units) **
Hydroquinone	Less than 5	2 mg/m^3
Phenidone	Less than 5	---
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F)	NA*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (=1)	NA
SOLUBILITY IN WATER	Appreciable	pH	NA
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS	None	Lel	Uel
EXTINGUISHING MEDIA	NA				
SPECIAL FIRE-FIGHTING PROCEDURES	None				
UNUSUAL FIRE AND EXPLOSION HAZARDS	None				

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*NA - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

INHALATION: Dust causes irritation. EYES: Contact with the powder causes irritation. Long-term eye exposure to excessive dust may result in corneal damage. SKIN: Prolonged contact may cuase irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST-AID PROCEDURES

INHALATION: Remove from exposure. EYES: Flush immediately with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
	UNSTABLE	
	STABLE X	

INCOMPATIBILITY (Materials to avoid): **Strong mineral acids**

HAZARDOUS DECOMROSITION PRODUCTS: **CO_2, sulfur dioxide**

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: **Flush to sewer with copious amounts of water. State and local effluent laws take precedence.**

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type): **An approved dust respirator if ventilation is inadequate**

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT: **As necessary to prevent skin contact**

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: **None**

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid)-type hand cleaner will help minimize the possibility of allergic skin reaction.

CAT No. 149 3899 - To Make 100 Litres
CAT No. 196 0756 - To Make 50 Litres

Reissued 12/78

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

V-21a
2842

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME	KODAK ME-4/VNF-1/RVNP First Developer Replenisher, Part B	SIZE	Several
CHEMICAL NAME			
FORMULA	Aqueous Mixture		
MANUFACTURER	EASTMAN KODAK COMPANY		
ADDRESS	343 STATE STREET, ROCHESTER, NEW YORK 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL	(716) 458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL	(716) 722-2121	INFORMATION EFFECTIVE AS OF	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units) **
Sodium Hydroxide	10 - 15	2 mg/m^3
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F)	Greater than 212°F (100°C)	SPECIFIC GRAVITY (H_2O=1)	1.35
VAPOR PRESSURE (mm Hg)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	76
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (=1)	NA*
SOLUBILITY IN WATER	Complete	pH	Greater than 13.0
APPEARANCE AND ODOR	Clear, colorless, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	NA			
SPECIAL FIRE-FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

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*NA - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

EYES: Contact with eyes causes severe burns.
SKIN: Contact with the skin causes severe burns.

EMERGENCY AND FIRST-AID PROCEDURES

EYES: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) **Strong acids**

HAZARDOUS DECOMPOSITION PRODUCTS **None**

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **Flush to sewer with copious amounts of water. State and local effluent laws take precedence.**

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type) **No**

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES	EYE PROTECTION
Yes	Yes

OTHER PROTECTIVE EQUIPMENT **As necessary to prevent skin contact**

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING **Store away from strong acids.**

OTHER PRECAUTIONS

None

V-22

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2717

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3 Fixer and Replenisher | SIZE: To make 100 Liters

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-20-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White crystals - little odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not applicable

KODAK ME-4/ECO-3 Fixer and Replenisher

V-22

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up and discard. Flush to sewer with large amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up and discard. Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 121 1804

Reissued 9/78

V-23a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3950/4253

SECTION I

PRODUCT NAME:	KODAK ME-4/ECO-3/VNF-1/RVNP Liquid Fixer and Replenisher	SIZE:	To Make 100 Liters
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	8/25/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.33
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	Approx. 47%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 6
APPEARANCE AND ODOR	Clear, colorless - odorless solution.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Alkali

HAZARDOUS DECOMPOSITION PRODUCTS Ammonia

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

None

V-24

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2646

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3 Neutralizer and Replenisher, Part A	SIZE: To make 100 Liters
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: (716) 722-2121	INFORMATION EFFECTIVE AS OF: 2-20-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.25
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	80%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution - sharp odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS None	Lel	Uel
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not applicable

V-24

KODAK ME-4/ECO-3 Neutralizer and Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 5.5

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush to sewer with large amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES: No

EYE PROTECTION: No

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Part B of CAT. No. 149 3311

REISSUED 3/77
V-25a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3766

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3 Neutralizer and Replenisher, Part B

SIZE: To make 100 Liters

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 2-10-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Hydroxylamine Sulfate	30 - 35	----------

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS

N. A.

*N. A. - Not applicable

KODAK ME-4/ECO-3 Neutralizer and Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Dust is irritating.
EYES: Contact with the mixture causes irritation.
SKIN: Prolonged contact causes irritation. Repeated contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove from exposure.
EYES: Immediately flush with plenty of water and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up bulk and dispose in landfill. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up bulk and dispose in landfill. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes
EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT: No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

The routine use of a non-alkaline (acid) type hand cleaner will help minimize the possibility of allergic skin reaction.

V-26

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

2585

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3 Prehardener and Replenisher, Part A | SIZE: To make 50 Liters

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-20-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White crystals, slightly sharp odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	198 F T.O.C.	FLAMMABLE LIMITS	Lel 16	Uel 25
EXTINGUISHING MEDIA	CO_2, water, foam, dry chemical			

SPECIAL FIRE FIGHTING PROCEDURES

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not applicable

KODAK ME-4/ECO-3 Prehardener and Replenisher, Part A

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up and discard. Flush to sewer with large amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up and discard. Flush to sewer with large amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No **EYE PROTECTION** No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

V-27

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

10522

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3 Prehardener and Replenisher, Part B

SIZE: To make 50 Liters

CHEMICAL NAME:

FORMULA: Solid mixture

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121

INFORMATION EFFECTIVE AS OF: 7-19-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable		
APPEARANCE AND ODOR	White powder - odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES:

N. A.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

N. A.

*N. A. - Not applicable

KODAK ME-4/ECO-3 Prohardener and Replenisher, Part B

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Low hazard

EMERGENCY AND FIRST AID PROCEDURES

None

SECTION VI REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
UNSTABLE		
STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up bulk. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Sweep up bulk. Flush residue to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION			
LOCAL EXHAUST	No	SPECIAL	No
MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT

No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 190 2964

REISSUED 3/77
V-28a

EASTMAN KODAK COMPANY
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MATERIAL SAFETY DATA SHEET

3779

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3 Prehardener and Replenisher, Part C | SIZE: To make 50 Liters

CHEMICAL NAME:

FORMULA: Aqueous solution

MANUFACTURER: Eastman Kodak Company

ADDRESS: 343 State Street, Rochester, New York 14650

FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566

FOR OTHER INFORMATION CALL: (716) 722-2121 | INFORMATION EFFECTIVE AS OF: 2-10-77

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Formaldehyde	25 - 30	2 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	204 F (95 C)	SPECIFIC GRAVITY (H_2O=1)	1.07
VAPOR PRESSURE (mm Hg.)	Approx. 140	PERCENT VOLATILE BY VOLUME (%)	97
VAPOR DENSITY (AIR=1)	Approx. 1.2	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, aldehyde odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 170 F (77 C) T.O.C.	FLAMMABLE LIMITS	Lel 7.0	Uel 73

EXTINGUISHING MEDIA: CO_2, water, dry chemical

SPECIAL FIRE FIGHTING PROCEDURES

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

*N. A. - Not applicable

KODAK ME-4/ECO-3 Prehardener and Replenisher, Part C

V-28c

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	pH approx. 2

EFFECTS OF OVEREXPOSURE

INHALATION: Vapor causes irritation. EYES: Contact with the liquid or vapor causes irritation. SKIN: Prolonged contact with the liquid causes irritation. Repeated skin contact may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure.
EYES: For liquid contact, immediately flush with plenty of water for at least 15 minutes and get medical attention.
SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

✓ INCOMPATIBILITY (Materials to avoid): Strong alkali

✓ HAZARDOUS DECOMPOSITION PRODUCTS: Heat

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

✓ STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD

✓ React with sodium bisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): No

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES: Yes

EYE PROTECTION: Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

Wash thoroughly after handling.

CAT. No. 191 7392 Reissued 11/78

V-29a

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3055

SECTION I

PRODUCT NAME:	KODAK ME-4/ECO-3/VNF-1/RVNP Stabilizer and Replenisher	SIZE:	To Make 100 Liters
CHEMICAL NAME:			
FORMULA:	Aqueous Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	8/23/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Formaldehyde	35-40	2 ppm (C)
		**ACGIH, 1977

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	~~205-214 F~~ (96-101 C)	SPECIFIC GRAVITY (H_2O=1)	1.08
VAPOR PRESSURE (mm Hg.)	Approx. 49	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	Approx. 0.83	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.5
APPEARANCE AND ODOR	Clear, colorless liquid; strong, irritating aldehyde odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
140 F (60 C) (TCC)		7.0	73

EXTINGUISHING MEDIA CO_2, dry chemical, water

SPECIAL FIRE FIGHTING PROCEDURES None

UNUSUAL FIRE AND EXPLOSION HAZARDS None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE ---

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid causes severe eye burns. Vapor is irritating. SKIN: Prolonged or repeated contact causes irritation and may result in allergic skin reaction.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Flush immediate with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water for at least 15 minutes. If contact is extensive, shower immediately while removing contaminated clothing and shoes. Call a physician.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		---
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	---
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Neutralize with sodium metabisulfite then flush to sewer with copious amounts of water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Portable breathing apparatus or air line respirator for emergency.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS
Wash thoroughly after handling.

CAT. 187 3256

Reissued 3/79

V-30a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3061

SECTION I

PRODUCT NAME: KODAK ME-4/ECO-3/VNF-1/RVNP Stop Bath and Replenisher	SIZE: Cs/4 100 Litres
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/25/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Acetic acid	70 - 75	10 ppm

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.10
VAPOR PRESSURE (mm Hg.)	Approx. 15	PERCENT VOLATILE BY VOLUME (%)	99
VAPOR DENSITY (AIR=1)	Approx. 1.60	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.5
APPEARANCE AND ODOR	Clear colorless solution - vinegar odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	142-160 F (61-71 C)		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

KODAK ME-4/ECO-3/VNF-1 RVNP Stop
Bath and Replenisher V-30a

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Vapor causes irritation. EYES: Contact with the liquid causes severe burns. Vapor is irritating. SKIN: Contact with the liquid causes severe burns.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: For liquid contact, flush immediately with plenty of water for at least 15 minutes and get medical attention. SKIN: Flush immediately with plenty of water while removing contaminated clothing and shoes.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong bases

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved organic vapor respirator if ventilation is inadequate.

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS
None

V-31

EASTMAN KODAK COMPANY
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"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

3339

SECTION I

PRODUCT NAME: KODAK Color Film Liquid Fixer and Replenisher	SIZE: 1-1/4, 15 gals.
CHEMICAL NAME:	
FORMULA: Aqueous mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: Ext. 74346	INFORMATION EFFECTIVE AS OF: 2-20-76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.350
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	68%
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear, colorless solution		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
		None		
EXTINGUISHING MEDIA	N. A.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

*N. A. - Not applicable

KODAK Color Film Liquid Fixer and Replenisher

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

pH approx. 6

EFFECTS OF OVEREXPOSURE

Of low toxicity and low hazard to health

EMERGENCY AND FIRST AID PROCEDURES

None appear indicated

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush to sewer with large amounts of water.

WASTE DISPOSAL METHOD

Flush to sewer with large amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. No. 180 4020

New - 10/78

V-32

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

14078

SECTION I

PRODUCT NAME:	KODAK Persulfate Bleach Accelerator PBA-1	SIZE:	5 Kg
CHEMICAL NAME:			
FORMULA:	Solid Mixture		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	4/12/78

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
An isothiouronium salt	95-100	---

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Slight	pH	N. A.
APPEARANCE AND ODOR	Pale off-white powder, odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE None assigned.

EFFECTS OF OVEREXPOSURE INHALATION: Dust may cause upper respiratory tract irritation. EYES: Contact with the powder can cause burns. SKIN: Prolonged or repeated skin contact can cause skin irritiation and/or burns.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES OR SKIN: Immediately flush eyes or skin with plenty of water for at least 15 minutes and get medical attention for eyes. Remove contaminated clothing.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep up as much as possible. Dispose of by landfill or incinerate. Flush excess with water. State and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Sweep up as much as possible. Dispose of by landfill or incinerate. Flush excess with water. State and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) An approved dust respirator if ventilation is inadequat .

VENTILATION				
	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING None

OTHER PRECAUTIONS

Wash thoroughly after handling.

CAT 184 7722

Reissued 5/79

V-33a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10795

SECTION I

PRODUCT NAME: KODAK Stabilizer Additive	SIZE: 1 Quart
CHEMICAL NAME:	
FORMULA:	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 8/18/76

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
Polyoxethylene 12 Tridecyl Alcohol	95 - 100	-----

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	~~Greater than~~ 300 F (149 C)	SPECIFIC GRAVITY (H_2O=1)	1.0
VAPOR PRESSURE (mm Hg.)	Less than 1.0	PERCENT VOLATILE BY VOLUME (%)	3
VAPOR DENSITY (AIR=1)	Unknown	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	N. A.
APPEARANCE AND ODOR	Odorless, colorless liquid (may thicken or cloud at low temperatures)		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
300 F (149 C) Cleveland O. C.	N. A.		

EXTINGUISHING MEDIA: Water fog

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

A-407

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
EYES: Contact with the liquid causes irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush immediately with plenty of water and get medical attention.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Sweep with absorbent material or flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Dispose in chemical sewer or landfill.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT No

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Keep in tightly closed containers.

OTHER PRECAUTIONS

None

The information herein is believed to be correct as of the date hereof, but is provided without warranty of any kind.

CAT. 180 2107 NEW 2/79

V-34

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4195

SECTION I

PRODUCT NAME: KODAK ME-4/VNF-1/RVNP Persulfate Accelerator and Replenisher, Part A	SIZE: To Make 100 Litres
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 2/5/79

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)
An isothiouronium salt		---

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.09
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	74
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2.1
APPEARANCE AND ODOR	Clear, pale yellow, "sulfur smelling"		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE ---

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid causes irritation.
SKIN: Prolonged and repeated contact may result in skin irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Immediately flush eyes with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Flush to sewer with copious amounts of water.
Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

CAT. 180 2107 New 2/79

V-35

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4310

SECTION I

PRODUCT NAME: KODAK ME-4/VNF-1/RVNP Persulfate Accelerator and Replenisher, Part B	SIZE: To Make 100 Litres
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 2/5/79

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Acetic acid	15 - 20	10 ppm

**ACGIH, 1978

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.16
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	96
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 3.2
APPEARANCE AND ODOR	Clear, colorless, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA N. A.

SPECIAL FIRE FIGHTING PROCEDURES None

UNUSUAL FIRE AND EXPLOSION HAZARDS None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE INHALATION: Vapor may cause upper respiratory tract irritation. EYES: Contact with the liquid may cause burns. Vapor may cause irritation. SKIN: Prolonged or repeated contact may cause skin irritation and/or burns.

EMERGENCY AND FIRST AID PROCEDURES INHALATION: Remove from exposure. EYES: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention. SKIN: Immediately flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS Sulfur dioxide

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium bicarbonate, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Neutralize with sodium bicarbonate, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	If necessary	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT
As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
None

OTHER PRECAUTIONS

None

CAT 180 2081 Reissued 6/79

V-36a

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

10982

SECTION I

PRODUCT NAME:	KODAK ME-4/VNF-1/RVNP Persulfate Bleach and Replenisher, Part A	SIZE:	To Make 100 Litres
CHEMICAL NAME:			
FORMULA:	$Na_2 S_2 O_8$		
MANUFACTURER:	Eastman Kodak Company		
ADDRESS:	343 State Street, Rochester, New York 14650		
FOR INFORMATION ON HEALTH HAZARDS CALL:	716-458-1000 Ext. 85566		
FOR OTHER INFORMATION CALL:	716-722-2121	INFORMATION EFFECTIVE AS OF:	1/31/79

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	N. A.*	SPECIFIC GRAVITY (H_2O=1)	Greater than 1
VAPOR PRESSURE (mm Hg.)	Negligible	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	N. A.	EVAPORATION RATE (_____=1)	N. A.
SOLUBILITY IN WATER	Appreciable	pH	N. A.
APPEARANCE AND ODOR	White odorless powder		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
527 F (275 C)	None		

EXTINGUISHING MEDIA CO_2

SPECIAL FIRE FIGHTING PROCEDURES None

UNUSUAL FIRE AND EXPLOSION HAZARDS None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE None assigned.

EFFECTS OF OVEREXPOSURE
Low hazard.

EMERGENCY AND FIRST AID PROCEDURES

None indicated.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) HNO_3, HCl, Cl^-, Br^-, F^-, bases

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Reduce with sodium metabisulfite, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD
Reduce with sodium metabisulfite, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES No **EYE PROTECTION** No

OTHER PROTECTIVE EQUIPMENT
None

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep in tightly closed container.

OTHER PRECAUTIONS

None

CAT. 180 2065 NEW 2/79

V-37

EASTMAN KODAK COMPANY
APPROVED BY U.S. DEPARTMENT OF LABOR
"ESSENTIALLY SIMILAR" TO FORM OSHA-20

MATERIAL SAFETY DATA SHEET

4309

SECTION I

PRODUCT NAME: KODAK ME-4/VNF-1/RVNP Persulfate Bleach and Replenisher, Part B	SIZE: To Make 100 Litres
CHEMICAL NAME:	
FORMULA: Aqueous Mixture	
MANUFACTURER: Eastman Kodak Company	
ADDRESS: 343 State Street, Rochester, New York 14650	
FOR INFORMATION ON HEALTH HAZARDS CALL: 716-458-1000 Ext. 85566	
FOR OTHER INFORMATION CALL: 716-722-2121	INFORMATION EFFECTIVE AS OF: 1/31/79

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (Units)**
Phosphoric acid	1 - 5	1 mg/m^3
		**ACGIH, 1978

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	Greater than 212 F (100 C)	SPECIFIC GRAVITY (H_2O=1)	1.24
VAPOR PRESSURE (mm Hg.)	Approx. 17	PERCENT VOLATILE BY VOLUME (%)	86
VAPOR DENSITY (AIR=1)	Approx. 0.6	EVAPORATION RATE (_____=1)	N. A.*
SOLUBILITY IN WATER	Complete	pH	Approx. 2.4
APPEARANCE AND ODOR	Clear, odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
None	None		

EXTINGUISHING MEDIA: N. A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

*N. A. - Not Applicable

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

EYES: Contact with the liquid causes irritation.
SKIN: Prolonged or repeated contact may result in skin irritation.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Immediately flush eyes with plenty of water and get medical attention. SKIN: Flush with plenty of water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) None

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Neutralize with sodium bicarbonate, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

WASTE DISPOSAL METHOD

Neutralize with sodium bicarbonate, then flush to sewer with copious amounts of water. Federal, state and local effluent laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) No

VENTILATION				
	LOCAL EXHAUST	No	SPECIAL	No
	MECHANICAL (general)	No	OTHER	No

PROTECTIVE GLOVES Yes

EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT

As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None

OTHER PRECAUTIONS

None

Appendix B

ILFORD CHEMICALS

Safe Handling of Ilford Cibachrome Chemicals - Process P-10

Cibachrome P-10 Developer Part A contains hydroquinone, approximately 95% by weight. This hazardous ingredient is a white crystal when dry and in the working solution, is a clear liquid with no obvious odor. Hydroquinone causes eye irritation and is harmful if swallowed. Ingestion may cause tinnitus, nausea, dizziness, sense of suffocation, vomiting, pallor, headache, cyanosis (methemoglobinemia), delirium, and collapse. If swallowed, give milk or water to drink. Induce vomiting. In case of contact, flush eyes with water for 15 minutes. Wash skin with water and soap, if available. If inhaled, remove to fresh air. Give oxygen or artifical respiration if necessary. Call a physician.

In case the material is released or spilled, flush to sewer with large amounts of water, if practice is in compliance with local, state, and federal health and environmental regulations. Wear rubber gloves and full goggles. A dust mask is recommended in dusty areas. Avoid contact with eyes and inhalation of powder.

Cibachrome P-10 Dye Bleach Bath Part A contains sulfuric acid 100% white sugar-like particles, when mixed is a yellow liquid with a skunk odor. The effect of over-exposure will cause eye burns and irritation of the skin, nose and throat. It may be harmful if swallowed. If swallowed, give plenty of milk or water. Do not induce vomiting. In case of contact, flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and water. If inhaled, remove to fresh air. Give oxygen or artificial respiration if necessary. Call a physician in all cases.

Ilford, Inc.
Paramus, NJ

If spilled, flush with large amounts of water. Use local exhaust with high dust concentration, wear rubber gloves and full goggles.

Special precautions must be taken during handling to not get sulfuric acid in the eyes. Avoid contact with skin and clothing. Avoid breathing dust. Use with ventilation hood. Wash thoroughly after handling. WARNING: Causes severe eye irritation. When mixing Part A with water, great care must be taken not to splash it into the eyes or onto the skin.

Cibachrome P-10 Dye Bleach bath part B contains 2-Ethoxyethanol 64% by weight and is hazardous in toxic levels over 100 parts per million. It is a dark amber liquid with a strong skunk odor. When mixed in working solution, is yellow liquid with skunk odor. The flash point is 154-162° F and is a fire hazard. The effects of overexposure, over 100 ppm, are trace of skin and eye irritation on contact. Breathing of vapors will be irritating and will not be tolerated for long in harmful amounts. May produce congestion and edema of the lungs. If swallowed, give milk or water. Induce vomiting. In case of contact, flush eyes with plenty of water for 15 minutes. Call a physician. Wash skin with water and soap if available. If inhaled, remove to fresh air. Give oxygen or artificial respiration if necessary.

Accidental spills must be followed with large amounts of water. Wear rubber gloves and eye protection goggles. Avoid contact with the eyes, repeated or prolonged contact with skin, or

inhalation of vapors. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Other precautions are to keep away from heat and open flame. WARNING: Harmful if inhaled. Combustible.

Cibachrome P-10 Silver Bleach Bath Part A contains potassium ferricyanide 100% by weight. It is an orange-yellow powder and when mixed to working strength, has an acetic acid odor. The unusual fire hazard is that it may release cyanide fumes if heated to decomposition temperature or when in contact with acids. Effects of over-exposure are: May be fatal if swallowed, inhaled, or absorbed through the skin. Immediate collapse. Dizziness, weakness, headache, confusion, sweating, nausea, occasional vomiting, anxiety and giddiness; shortness of breath and increased respiratory rate; later, breath slow and gasping. Blood pressure increases. The emergency and first aid procedures are, if swallowed, give plenty of milk or water. Induce vomiting. In case of contact, remove contaminated clothes and shoes at once. Flush eyes with plenty of water for at least 15 minutes. Wash skin, including hair and under fingernails with water and soap if available. If inhaled, remove to fresh air. Give oxygen or artificial respiration (not mouth to mouth) if necessary. CALL A PHYSICIAN AT ONCE. DANGER: MAY BE FATAL IF SWALLOWED, INHALED, OR ABSORBED BY THE SKIN.

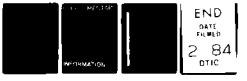
Remarks to physician: Contains potassium ferricyanide which may release hydrogen cyanide. If swallowed, inhaled, or absorbed, treat as cyanide poisoning. Suggestions, depending on clinical course:

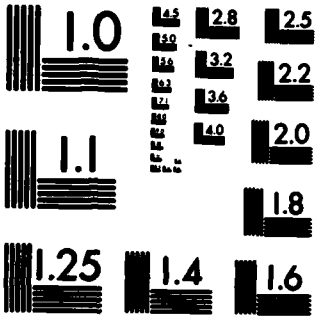
Give oxygen. Give amyl nitrite inhalation by broken pearl for 15-30 seconds per minute for 25 minutes (discontinue if blood pressure falls below 80mm systolic). In addition to amyl nitrite pearls, administer sodium nitrite and sodium thiosulfate. Quickly withdraw 10 ml blood sample into a tube prepared with disodium EDTA, for toxicological analysis; leave needle in place and inject 10 ml of 3% sodium nitrite over a period of 3-4 minutes; again leave needle in place and infuse 50 ml of 25% sodium thiosulfate (infuse about 5 ml/minute). If symptoms persist or recur, administer nitrite and thiosulfate at one-half original dose. Observe patient for at least 24 hours for recurrence and make sure all contaminated wearing apparel are cleansed or disposed of. IF INGESTED: Perform gastric lavage with large amounts of water (no more than 250 ml at one time). Leave 30 gm of sodium sulfate in 250 ml water in the stomach after lavage. Consider gastroentherostomy. IN CASE OF EYE CONTACT: The injured eye requires thorough irrigation with water, and immediate attention of an ophthalmologist. The use of agents such as anti-collagenases, steriods, antibiotics, and drugs to prevent iritis require careful and continuing evaluation of the clinical status of the patient. Substances to neutralize the injurious material should not be put into the eye.

AD-A091 914 THE TOXICITY OF PHOTOGRAPHIC CHEMICALS(U) RANGE COMMANDERS COUNCIL WHITE SANDS MISSILE RANGE NM OPTICAL SYSTEMS GROUP OCT 80 RCC/OSG-450-80

616

UNCLASSIFIED F/G 6/10 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

SUPPLEMENTARY

INFORMATION

AD-A091914

OSG

DOCUMENT 450-80
(Formerly 102-80)

THE TOXICITY OF PHOTOGRAPHIC CHEMICALS

OPTICAL SYSTEMS GROUP
INTER-RANGE INSTRUMENTATION GROUP
RANGE COMMANDERS COUNCIL

WHITE SANDS MISSILE RANGE
KWAJALEIN MISSILE RANGE
YUMA PROVING GROUND

PACIFIC MISSILE TEST CENTER
NAVAL WEAPONS CENTER
ATLANTIC FLEET WEAPONS TRAINING FACILITY
NAVAL AIR TEST CENTER

EASTERN SPACE AND MISSILE CENTER
ARMAMENT DIVISION
WESTERN SPACE AND MISSILE CENTER
AIR FORCE SATELLITE CONTROL FACILITY
AIR FORCE FLIGHT TEST CENTER
AIR FORCE TACTICAL FIGHTER WEAPONS CENTER