

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 1/8



1. Identification of the substance/preparation and of the company/undertaking

Product name: KODAK FLEXICOLOR Stabilizer III and Replenisher / C-41, Concentrate

Product code: 1965482 - Concentrate

Manufacturer: EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York, 14650

Supplier: EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York, 14650

For Emergency Health, Safety & Environmental Information, call (585) 722-5151 (USA)

For other information or to request an MSDS, call (800) 242-2424.

Synonyms: PCD 6017

2. Hazards identification

CONTAINS: Formaldehyde (50-00-0), Methanol (67-56-1), Octylphenoxyethoxyethanol (9036-19-5), Sodium alkyl phenoxy ether sulphate (9014-90-8)

DANGER!

MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTIONS

CAUSES EYE BURNS

CANCER HAZARD - CAN CAUSE CANCER

HARMFUL IF INHALED OR SWALLOWED

DUST, MIST OR VAPOUR IRRITATING TO THE EYES AND RESPIRATORY TRACT

CAUSES SKIN IRRITATION

COMBUSTIBLE LIQUID AND VAPOR

HMIS II Hazard Ratings:

Health - 3*, Flammability - 1, Reactivity (Stability) - 0

NFPA Hazard Ratings:

Health - 2, Flammability - 1, Instability - 0

NOTE: HMIS II and NFPA hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. An asterisk (*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
80 - 85	Water (7732-18-5)
10	Formaldehyde (50-00-0)
3	Methanol (67-56-1)
1 - 5	Octylphenoxyethoxyethanol (9036-19-5)

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 2/8

1 - 5

Sodium alkyl phenoxy ether sulphate (9014-90-8)

4. First aid measures

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Do NOT induce vomiting. Give victim a glass of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Notes to physician:

Treatment: Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

5. Fire-fighting measures

Extinguishing Media: water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products. Use water spray to cool unopened containers. Fight fire from a protected location.

Hazardous Combustion Products: Carbon oxides, (see also Hazardous Decomposition Products section).

Unusual Fire and Explosion Hazards: Classified as combustible. Material contains a combustible solvent that may accumulate in the container headspace. Reducing agent. Reacts violently with oxidizing materials. Fire or excessive heat may result in rupture of container due to bulk polymerization. May cause spontaneous heating and ignition when absorbed on combustible, porous material (e.g. rags, paper, sawdust, cotton, clothing).

6. Accidental release measures

Methods for cleaning up: Remove all sources of ignition. Collect in a noncombustible container for prompt disposal. Clean surface thoroughly to remove residual contamination.

For Large Spills: Flush with plenty of water.

7. Handling and storage

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 3/8

Personal precautions: Do not breathe vapour at concentrations greater than the exposure limits. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat and sources of ignition. Ensure adequate ventilation. Exercise caution if heating, especially in a closed container. Keep from contact with oxidizing materials, highly oxygenated or halogenated solvents, organic compounds containing reducible functional groups. Remove and wash contaminated clothing promptly.

Storage: Keep container tightly closed to prevent the loss of water. Keep containers tightly closed in a cool, well-ventilated place. Store in cool place. Do not freeze. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls / personal protection

Occupational exposure controls

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

Chemical Name	Regulatory List	Value Type	Value
Formaldehyde	ACGIH	Ceiling Limit Value:	0.3 ppm
	OSHA	time weighted average	0.75 ppm
	OSHA	Short term exposure limit	2 ppm
	OSHA	OSHA Action level:	0.5 ppm
	ACGIH		
Methanol		<i>Remarks: Sensitizer</i>	
	ACGIH	time weighted average	200 ppm
	ACGIH	Short term exposure limit	250 ppm
	ACGIH	Skin designation:	
	OSHA Z1	<i>Remarks: Can be absorbed through the skin.</i> Permissible exposure limit	200 ppm 260 mg/m3

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Respiratory protection: If formaldehyde is emitted at levels requiring respiratory protection, the following respirator type should be worn: full facepiece with cartridges or canisters specifically approved by NIOSH for protection against formaldehyde or a TypeC air-supplied respirator demand type, with full facepiece, hood, or helmet. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29CFR 1910.134 and 29CFR1910.1048.

Eye protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection: All skin contact with liquids containing 0.1 percent or more formaldehyde should be prevented by use of chemical protective clothing made of material impervious to formaldehyde and the use of other personal protective equipment. Wear impervious gloves and protective clothing appropriate for the risk of exposure. The following gloves have been shown to be impervious under the indicated conditions: neoprene rubber, nitrile rubber.

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 4/8

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and Chemical Properties

Physical form: liquid

Colour: colourless

Odour: formaldehyde

Specific gravity: 1.02

Vapour pressure (at 20.0 °C (68.0 °F)) : 24 mbar (18.0 mm Hg)

Vapour density: 0.6

Volatile fraction by weight: 80 - 85 %

Boiling point/range: > 100.0 °C (> 212.0 °F)

Water solubility: complete

pH: 6.0

Flash point: 60.5 - 93.0 °C (140.9 - 199.4 °F) estimated

10. Stability and reactivity

Stability: Stable; however, may polymerize at elevated temperatures. Safe handling temperatures are dependent on specific conditions of use and are typically substantially below the onset temperature. Consult your technical safety experts.

Incompatibility: halogenated compounds, oxidizing agents, strong bases, strong acids, metal salts, hydroxides.

Hazardous decomposition products: formaldehyde.

Hazardous Polymerization: Nonhazardous polymerization may occur., Avoid alkalis, heat, incompatible materials.

11. Toxicological information

Effects of Exposure

General advice:

Contains: Methanol. Prolonged and repeated exposure to high vapour concentrations, skin absorption or ingestion of methyl alcohol may result in visual disturbances, metabolic acidosis, headache, giddiness, nausea, insomnia, gastric disturbance, dizziness, and slow breathing.

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 5/8

There have been several cases reported of blindness, coma and death due to the ingestion of methyl alcohol.

Contains: Formaldehyde. Cancer hazard. Can cause cancer.

Inhalation: Harmful if inhaled. Formaldehyde is detectable by most people at levels below 1 ppm. It produces mild sensory irritation of the eyes, nose and throat at 2-5 ppm, becomes unpleasant at 5-10 ppm, and is intolerable at higher concentrations causing severe burning sensations of the nose and throat with coughing. Higher concentrations may cause chest constriction, headache, bronchopneumonia, dysphagia, edema, and spasms of the larynx and dyspnea. Exposure to formaldehyde may cause respiratory sensitization in some individuals or aggravate pre-existing asthmatic conditions.

Eyes: Causes eye burns. Vapor causes eye irritation and tearing.

Skin: Causes irritation. May cause allergic skin reaction.

Ingestion: Harmful if swallowed. May cause burns of the mouth, esophagus, and stomach. Retinal and kidney damage may also occur. Immediate severe abdominal pain occurs, often with vomiting, nausea, diarrhea, dizziness, unconsciousness or coma, anuria, convulsions, and possible death.

Data for Formaldehyde (CAS 50-00-0):

Acute Toxicity Data:

- Oral LD50 (rat): 800 mg/kg
- Inhalation LCLo (rat): 250 ppm / 4 hr (formaldehyde gas)
- Dermal LD50: 270 mg/kg
- Skin irritation: moderate
- Eye irritation: severe

Data for Methanol (CAS 67-56-1):

Acute Toxicity Data:

- Oral LD50 (rat): 6,200 mg/kg
- Inhalation LC50 (rat): > 22500 ppm / 8 hr
- Dermal LD50: 20 mL/kg
- Skin irritation: moderate
- Eye irritation: slight to moderate

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Fish LC50:	> 100 mg/l
Daphnid EC50:	> 100 mg/l
Algal IC50:	No data available

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 6/8

Waste treatment organisms EC50: > 100 mg/l
Organics Readily Degradable: Yes
Potential Bioaccumulation: log Pow < 1
COD (approximate): 143 g/l
BOD (approximate): 78 g/l

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

Not regulated for all modes of transportation.

For transportation information regarding this product call the Kodak Worldwide Transportation Hazmat Hot Line: (585) 722-2400 between 8 a.m. and 5 p.m. (Eastern Standard Time), Monday through Friday. In Canada: General Shipping Information, call: (416) 766-8233.

15. Regulatory information

U.S. California Prop. 65: Formaldehyde (Carcinogenic.)

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): Formaldehyde: 1 (Human carcinogen.)
American Conference of Governmental Industrial Hygienists (ACGIH): Formaldehyde: Group A2 (Suspected human carcinogen.)
U.S. National Toxicology Program (NTP): Formaldehyde (Anticipated carcinogen.)
U.S. Occupational Safety and Health Administration (OSHA): Formaldehyde (Potential cancer hazard.)

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: Formaldehyde, Methanol

16. Other information

US/Canadian Label Statements:

CONTAINS: Formaldehyde (50-00-0), Methanol (67-56-1), Octylphenoxypolyethoxyethanol (9036-19-5), Sodium alkyl phenoxy ether sulphate (9014-90-8)

DANGER!

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 7/8

MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTIONS
CAUSES EYE BURNS
CANCER HAZARD - CAN CAUSE CANCER
HARMFUL IF INHALED OR SWALLOWED
DUST, MIST OR VAPOUR IRRITATING TO THE EYES AND RESPIRATORY TRACT
CAUSES SKIN IRRITATION
COMBUSTIBLE LIQUID AND VAPOR

Keep away from heat and sources of ignition.
Store in cool place.
Keep container tightly closed.
Do not freeze.
Ensure adequate ventilation.
Avoid heat or contamination.
Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly.
Do not breathe vapour.
Do not get in eyes, on skin, or on clothing.
Wash thoroughly after handling.

FIRST AID: If swallowed, do NOT induce vomiting. Give victim a glass of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

Notes to physician: Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

Keep out of reach of children.

Do not handle or use until safety precautions in Material Safety Data Sheet (MSDS) have been read and understood.

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

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

IN CASE OF FIRE: Use water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO₂). Use water spray to cool unopened containers.

IN CASE OF SPILL: Remove all sources of ignition.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
Z17000000749/Version: 1.0
Print Date: 07/10/2006
Page: 8/8

the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

R-2, S-3, F-2, C-1ZT CARC

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
000000014967/Version: 1.0
Print Date: 07/10/2006
Page: 1/5



1. Identification of the substance/preparation and of the company/undertaking

Product name: KODAK FLEXICOLOR Stabilizer III and Replenisher / C-41, KODAK Flexicolor Stabilizer III and Replenisher / C-41 (working solution)

Product code: 1965482 - KODAK Flexicolor Stabilizer III and Replenisher / C-41 (working solution)

Manufacturer: EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York, 14650

Supplier: EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York, 14650

For Emergency Health, Safety & Environmental Information, call (585) 722-5151 (USA)

For other information or to request an MSDS, call (800) 242-2424.

Synonyms: None.

2. Hazards identification

**LOW PHYSICAL HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL HANDLING
EXPECTED TO BE A LOW HEALTH HAZARD FOR RECOMMENDED HANDLING**

HMIS II Hazard Ratings:

Health - 1, Flammability - 0, Reactivity (Stability) - 0

NFPA Hazard Ratings:

Health - 2, Flammability - 0, Instability - 0

NOTE: HMIS II and NFPA hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. An asterisk (*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
95 - 100	Water (7732-18-5)
< 0.1	Formaldehyde (50-00-0)
< 0.1	Methanol (67-56-1)
< 0.1	Sodium alkyl phenoxy ether sulphate (9014-90-8)
< 0.1	Octylphenoxyethoxyethanol (9036-19-5)

4. First aid measures

Inhalation: If symptomatic, move to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
000000014967/Version: 1.0
Print Date: 07/10/2006
Page: 2/5

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

Skin: Wash off with soap and water. Get medical attention if symptoms occur.

Ingestion: Drink 1 or 2 glasses of water. Get medical attention. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special Fire-Fighting Procedures: None (noncombustible)

Hazardous Combustion Products: None (noncombustible)

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Methods for cleaning up: Flush into sewer with plenty of water. Otherwise, absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Avoid contact with eyes and prolonged or repeated contact with skin. Ensure adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: No special technical protective measures required.

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

8. Exposure controls / personal protection

Occupational exposure controls: Not established

Ventilation: Good general ventilation should be used. Ventilation should be sufficient so that applicable occupational exposure limits are not exceeded. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances.

Respiratory protection: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134.

Eye protection: It is a good industrial hygiene practice to minimize eye contact. Wear safety glasses

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
000000014967/Version: 1.0
Print Date: 07/10/2006
Page: 3/5

with side shields (or goggles).

Skin and body protection: It is a good industrial hygiene practice to minimize skin contact. For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and Chemical Properties

Physical form: liquid

Colour: colourless

Odour: slight

Specific gravity: 1.001

Vapour pressure (at 20.0 °C (68.0 °F)) : 24 mbar (18.0 mm Hg)

Vapour density: 0.6

Volatile fraction by weight: 95 - 100 %

Water solubility: complete

pH: 9.0

Flash point: none, noncombustible liquid

10. Stability and reactivity

Stability: Stable

Incompatibility: None with common materials and contaminants with which the material may reasonably come into contact.

Hazardous decomposition products: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerization does not occur.

11. Toxicological information

Effects of Exposure

Inhalation: Expected to be a low hazard for recommended handling.

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

Skin: Expected to be a low hazard for recommended handling.

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
000000014967/Version: 1.0
Print Date: 07/10/2006
Page: 4/5

Ingestion: Expected to be a low hazard for recommended handling.

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Fish LC50:	> 100 mg/l
Daphnid EC50:	> 100 mg/l
Algal IC50:	No data available

Waste treatment organisms EC50: > 100 mg/l

Organics Readily Degradable: Yes

Potential Bioaccumulation: log Pow < 1

COD (approximate): 0.6 g/l

BOD (approximate): 0.1 g/l

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

Not regulated for all modes of transportation.

For transportation information regarding this product call the Kodak Worldwide Transportation Hazmat Hot Line: (585) 722-2400 between 8 a.m. and 5 p.m. (Eastern Standard Time), Monday through Friday. In Canada: General Shipping Information, call: (416) 766-8233.

15. Regulatory information

U.S. California Prop. 65: Formaldehyde (Carcinogenic.)

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): none

American Conference of Governmental Industrial Hygienists (ACGIH): none

U.S. National Toxicology Program (NTP): none

U.S. Occupational Safety and Health Administration (OSHA): none

MATERIAL SAFETY DATA SHEET

Revision Date: 08/22/2005
000000014967/Version: 1.0
Print Date: 07/10/2006
Page: 5/5

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none

16. Other information

US/Canadian Label Statements:

**LOW PHYSICAL HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL HANDLING
EXPECTED TO BE A LOW HEALTH HAZARD FOR RECOMMENDED HANDLING**

Keep container tightly closed.
Avoid prolonged or repeated breathing of mist or vapour.
Avoid contact with eyes and prolonged or repeated contact with skin.
Ensure adequate ventilation.
Wash thoroughly after handling.

FIRST AID: Treat symptomatically. Get medical attention if symptoms occur.

Keep out of reach of children.

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

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

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

R-1, S-1, F-0, C-0