

# MATERIAL SAFETY DATA SHEET

Revision Date: 08/14/2006  
Z17000000252/Version: 1.4  
Print Date: 12/31/2006  
Page: 1/6



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

**Product name:** KODAK EKTACOLOR RA Bleach Fix and Replenisher, Part B

**Product code:** 8471484 - Part B

**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 5777

**Product Use:** Professional colour paper photographic processing solution

## 2. Hazards identification

**CONTAINS:**

**WARNING!**  
**LOW HAZARD FOR RECOMMENDED HANDLING**

**NFPA Hazard Ratings:** Health - 1, Flammability - 1, Instability - 0

NOTE: NFPA 704 (2001) hazard indexes involves data review and interpretation that may vary among companies. It is intended only for rapid, general identification of the magnitude of the potential hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

## 3. Composition/information on ingredients

Weight %	Components (CAS-No.)
70 - 75	Water (7732-18-5)
20 - 25	Ammonium ferric ethylenediaminetetraacetic acid (21265-50-9)
1 - 5	Glycine, N,N'-1,2-ethanediybis{N-(carboxymethyl-, triammonium salt (15934-01-7)
1 - < 5	Acetic acid (64-19-7)

## 4. First aid measures

**Inhalation:** If inhaled, move to fresh air. Get medical attention if symptoms occur.

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

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

# MATERIAL SAFETY DATA SHEET

Revision Date: 08/14/2006  
Z17000000252/Version: 1.4  
Print Date: 12/31/2006  
Page: 2/6

---

**Ingestion:** Get medical attention if symptoms occur.

## 5. Fire-fighting measures

**Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

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

**Unusual Fire and Explosion Hazards:** None.

## 6. Accidental release measures

**Methods for cleaning up:** 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, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling.

**Prevention of Fire and Explosion:** Keep from contact with oxidizing materials.

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

## 8. Exposure controls / personal protection

### Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Acetic acid	ACGIH	time weighted average	10 ppm
	ACGIH	Short term exposure limit	15 ppm
	OSHA Z1	Permissible exposure limit	10 ppm 25 mg/m3

**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:** None should be needed. If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: full-face organic vapour cartridge. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

# MATERIAL SAFETY DATA SHEET

Revision Date: 08/14/2006  
Z17000000252/Version: 1.4  
Print Date: 12/31/2006  
Page: 3/6

---

**Eye protection:** If a full-face respirator is not worn, wear vapour-tight chemical goggle and a face shield.

**Skin and body protection:** 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:** reddish-brown

**Odour:** slight ammonia

**Specific gravity:** 1.10

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

**Vapour density:** 0.6

**Volatile fraction by weight:** 70 - 75 %

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

**Water solubility:** complete

**pH:** 5.6

**Flash point:** does not flash

## 10. Stability and reactivity

**Stability:** Stable under normal conditions.

**Incompatibility:** Strong oxidizing agents, Strong bases, sodium hypochlorite (bleach). Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas).

**Hazardous decomposition products:** Ammonia, chloramine.

**Hazardous Polymerization:** Hazardous polymerization does not occur.

## 11. Toxicological information

### Effects of Exposure

#### General advice:

Contains: Ammonium ferric ethylenediaminetetraacetic acid. This compound can chelate

# MATERIAL SAFETY DATA SHEET

Revision Date: 08/14/2006  
Z17000000252/Version: 1.4  
Print Date: 12/31/2006  
Page: 4/6

---

metals and may alter calcium and other cation balances.

Contains: Acetic acid (Acetic Acid). Acute overexposure to extremely high airborne concentrations of respiratory irritants has been associated with development of an asthma-like reactive airways syndrome (RADS) in susceptible individuals. Extremely high airborne concentrations are not generated during normal conditions of use but may occur following a spill. The potential to generate extremely high airborne concentrations in a spill situation depends upon physical factors such as the concentration of the solution, the volume of the spill, the surface area of the spill, the size of the room where the spill occurred, and the ventilation rate in the room.

**Inhalation:** Low hazard for recommended handling.

**Eyes:** Causes eye irritation. However, immediate flushing of the eyes with water will minimize any irritative effect.

**Skin:** Low hazard for recommended handling.

**Ingestion:** Expected to be a low ingestion hazard.

## Data for Acetic acid (CAS 64-19-7):

### Acute Toxicity Data:

- Oral LD50 (rat): 3,310 - 3,530 mg/kg
- Oral LD50: 4,960 mg/kg
- Inhalation LC50: 5620 ppm / 1.00 hr
- Dermal LD50: 1,060 mg/kg
- Skin irritation: severe
- Eye irritation: severe

## 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: > 100 mg/l

Waste treatment organisms EC50: > 100 mg/l

Organics Readily Degradable: Readily biodegradable

Potential Bioaccumulation: log Pow < 1

COD (approximate): 130 g/l

BOD (approximate): 30 g/l



# MATERIAL SAFETY DATA SHEET

Revision Date: 08/14/2006  
Z17000000252/Version: 1.4  
Print Date: 12/31/2006  
Page: 6/6

---

## US/Canadian Label Statements:

### CONTAINS:

### WARNING! LOW HAZARD FOR RECOMMENDED HANDLING

Avoid prolonged or repeated breathing of mist or vapour.  
Use only with adequate ventilation.  
Avoid contact with eyes, skin, and clothing.  
Wash thoroughly after handling.

**FIRST AID:** If inhaled, move to fresh air. Wash off with soap and water. Get medical attention if symptoms occur.

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.

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 or carbon dioxide.

**IN CASE OF SPILL:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

---

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-1, C-0