

Safety Data Sheet

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Kodak alaris

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

Product name: KODAK EKTACOLOR PRO Bleach Fix and Replenisher RT, RA-4, Working solution

Product code: 5077607 - Working solution

Synonyms: None.

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: photographic processing chemical (fixer). For industrial use only.

Supplier: Kodak Alaris Inc., 2400 Mount Read Boulevard, Rochester, NY 14615

IN EMERGENCY, telephone: 1-800-424-9300 or +1 703-527-3887.

For further information about this product, email EHS-Questions@Kodakalaris.com.

2. Hazards identification

Classification of the chemical in accordance with paragraph (d) of 29 CFR 1910.1200:

Hazard class	Hazard category	Route of exposure
Respiratory sensitisation	Category 1	--

GHS-Labeling

Contains:

Acetic acid (64-19-7), Ammonium ferric ethylenediaminetetraacetic acid (21265-50-9), Sodium bisulphite (7631-90-5)

Symbol(s):



Signal word: Danger

Hazard statements: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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Precautionary statements:

Prevention: In case of inadequate ventilation wear respiratory protection. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Response: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulation.

HMIS III Hazard Ratings: Health - 1, Flammability - 1, Physical Hazard - 0

NFPA Hazard Ratings: Health - 2, Flammability - 1, Instability - 0

NOTE: HMIS III and NFPA 704 (2007) 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. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight percent	Components - (CAS-No.)
5 - 10	Ammonium ferric ethylenediaminetetraacetic acid (21265-50-9)
5 - < 10	Ammonium thiosulphate (7783-18-8)
1 - 5	Sodium bisulphite (7631-90-5)
0.1 - < 1	Ammonium sulphite (10196-04-0)
0.1 - 1	Acetic acid (64-19-7)

4. First aid measures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

Eyes: Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur. If easy to do, remove contact lens, if worn.

Skin: Wash off with soap and plenty of water. Get medical attention if symptoms occur. Wash contaminated clothing before re-use.

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Ingestion: If swallowed, DO NOT induce vomiting. Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed: No information available.

Indication of any immediate medical attention and special treatment needed:

Treatment: No information available.

5. Firefighting measures

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

Special hazards arising from the substance or mixture

Hazardous Combustion Products: Carbon oxides, Sulphur oxides, Nitrogen oxides (NO_x), (see also Hazardous Decomposition Products sections.)

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

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Methods and materials for containment and cleaning up: Absorb spill with inert material, then place in a chemical waste container. Clean surface thoroughly to remove residual contamination.

Environmental precautions: No information available.

7. Handling and storage

Precautions for safe handling

Personal precautions: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Avoid contact with eyes and prolonged or repeated contact with skin. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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

Conditions for safe storage, including any incompatibilities: Keep container tightly closed to prevent the loss of water. Keep away from incompatible substances (see Incompatibility section.)

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8. Exposure controls/personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Ammonium ferric ethylenediaminetetra acetic acid	ACGIH	time weighted average	1 mg/m3
Sodium bisulphite		time weighted average	<i>Expressed as Fe</i> 5 mg/m3
Sulphur dioxide	OSHA	Short term exposure limit time weighted average	0.25 ppm 5 ppm 13 mg/m3

Appropriate engineering controls: 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.

Individual protection measures, such as personal protective equipment

Eye protection: Wear safety glasses with side shields (or goggles).

Hand protection: For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Respiratory protection: None should be needed under normal conditions of use. A respirator should be worn if hazardous decomposition products are likely to be or have been released. Respirator type: acid gas See Stability and Reactivity Section. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

9. Physical and chemical properties

Physical form: liquid

Colour: dark reddish-brown

Odour: slight ammonia

Specific gravity: 1.102

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

Vapour density: 0.6

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Boiling point/boiling range: > 100 °C (> 212.0 °F)

Water solubility: complete

pH: 5.3 - 5.5

Flash point: > 93.33 °C (> 200.0 °F) (estimated)

Evaporation rate: No data available

Flammability (Solid; gas): No data available

Upper explosion limit: No data available

Lower explosion limit: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

10. Stability and reactivity

Reactivity: No data available

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: No data available

Incompatible materials: Acids, Strong bases, sodium hypochlorite (bleach), Oxidizing agents. Contact with strong acids may liberate sulphur dioxide. Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas).

Hazardous decomposition products: Ammonia, chloramine, Sulphur oxides, Nitrogen oxides (NO_x)

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11. Toxicological information

Effects of Exposure

General advice:

Contains: Ammonium ferric ethylenediaminetetraacetic acid. This compound can chelate metals and may alter calcium and other cation balances.

Contains: 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: May cause allergy or asthma symptoms or breathing difficulties if inhaled. In contact with strong acids or if heated, sulphites may liberate sulphur dioxide gas. Sulphur dioxide gas is irritating to the respiratory tract. Some asthmatics or hypersensitive individuals may experience difficult breathing.

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

Skin: This material has a low potential to cause allergic skin reactions; however, cases of human skin sensitization have been reported.

Ingestion: Expected to be a low hazard for recommended handling. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Data for Ammonium thiosulphate (CAS 7783-18-8):

Acute Toxicity Data:

Oral LD50 (male rat): 500 - 5,000 mg/kg

- Inhalation (rat): 2260 mg/m³ / 4 hr
- Eye irritation: none

Data for Sodium bisulphite (CAS 7631-90-5):

Acute Toxicity Data:

Oral LD50 (rat): > 1,600 mg/kg

- Dermal LD50 (rat): 2,000 mg/kg
- Eye irritation (May irritate eyes.): mild

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Data for Ammonium sulphite (CAS 10196-04-0):

Acute Toxicity Data:

Oral LD50 (rat): 2,528 mg/kg

- Inhalation LC50 (rat): > 2.46 mg/l / 6 hr
- Dermal LD50 (guinea pig): >1.0 g/kg
- Skin irritation: slight

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

Acute Toxicity Data:

Oral LD50 (rat): 3,310 - 3,530 mg/kg

- Inhalation LC50 (rat): 11.4 mg/l 4641 ppm / 4 hr
- Dermal LD50: 1,060 mg/kg
- Skin irritation: severe
- Eye irritation (washed eyes): severe
- Eye irritation (unwashed eyes): severe

12. Ecological information

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

Potential Toxicity:

Toxicity to fish (LC50): > 100 mg/l

Toxicity to daphnia (EC50): > 100 mg/l

Toxicity to algae (IC50): > 100 mg/l

Toxicity to other organisms (EC50): > 100 mg/l

Persistence and degradability: Readily biodegradable.

Chemical Oxygen Demand (COD): 65 g/l

Biochemical Oxygen Demand (BOD): 35 g/l

Bioaccumulative potential

No data available

Mobility in soil

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No information available.

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 more transportation information, go to: www.kodak.com/go/ship.

15. Regulatory information

Notification status

Regulatory List	Notification status
TSCA	All listed
DSL	All listed
NDSL	None listed
EINECS	All listed
ELINCS	None listed
NLP	None listed
AICS	All listed
IECS	All listed
ENCS	All listed
ECI	All listed
NZIoC	All listed
PICCS	All listed

"Not all listed" indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Other regulations

American Conference of Governmental Industrial Hygienists No component of this product present

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(ACGIH):	at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
California Prop. 65	WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
U.S. - CERCLA/SARA (40 CFR § 302.4 Designation of hazardous substances):	Sodium bisulphite
U.S. - CERCLA/SARA - Section 302 (40 CFR § 355 Appendices A and B - The List of Extremely Hazardous Substances and Their Threshold Planning Quantities):	No components of this product are subject to the SARA Section 302 (40 CFR 355) reporting requirements.
U.S. - CERCLA/SARA - Section 313 (40 CFR § 372.65 Toxic Chemical Release Reporting):	Ammonium thiosulphate , Ammonium ferric ethylenediaminetetraacetic acid
U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances:	Ammonium ferric ethylenediaminetetraacetic acid , Sodium bisulphite
U.S. - California - 8 CCR Section 5200-5220 - Specifically Regulated Carcinogens:	No components found on the California Specifically Regulated Carcinogens List.
U.S. - California - 8 CCR Section 5203 Carcinogens:	No components found on the California Section 5203 Carcinogens List.
U.S. - California - 8 CCR Section 5209 Carcinogens:	No components found on the California Section 5209 Carcinogens List.

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U.S. - Massachusetts - General Law Chapter 111F (MGL c 111F) - Hazardous Substances Disclosure by Employers (a.k.a. Right to Know Law):	Ammonium thiosulphate , Sodium bisulphite
U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Ammonium ferric ethylenediaminetetraacetic acid , Sodium bisulphite
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	Sodium bisulphite
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapter 323 Hazardous Substance List, Appendix A):	Water , Ammonium thiosulphate , Ammonium ferric ethylenediaminetetraacetic acid , Sodium bisulphite , Acetic acid , Ammonium bisulphite , Ammonium sulphite , Ammonium acetate

16. Other information

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

US/Canadian Label Statements:

KODAK EKTACOLOR PRO Bleach Fix and Replenisher RT, RA-4, Working solution

Contains:

Acetic acid (64-19-7), Ammonium ferric ethylenediaminetetraacetic acid (21265-50-9), Sodium bisulphite (7631-90-5)

Symbol(s):



Signal word: Danger

Hazard statements: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

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Prevention: In case of inadequate ventilation wear respiratory protection. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Response: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulation.

FIRST AID: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician. Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur. If easy to do, remove contact lens, if worn. Wash off with soap and plenty of water. Get medical attention if symptoms occur. Wash contaminated clothing before re-use. If swallowed, DO NOT induce vomiting. Rinse mouth. Call a POISON CENTER or doctor/ physician if you feel unwell. 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 inert material, then place in a chemical waste container. Clean surface thoroughly to remove residual contamination. Additional Components Include: Water (7732-18-5) , Ammonium thiosulphate (7783-18-8).

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