



# RA-4 BLEACH-FIX AND REPLENISHER PART A

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Photo Systems, Inc.  
7200 Huron River Drive, Dexter, MI 48130  
Product Number: **10825, 10826, 10827**  
**Customer Information Phone Number:**  
**CHEMTREC®: 24 Hour Emergency Transport Phone Number: 1-800-424-9300**

Product Name: **RA-4 BLEACH-FIX PART A**  
Date Prepared: 12/03/2008  
1-800-521-4042

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS</u>	<u>OHSA PEL</u>	<u>ACGIH TLV</u>	<u>Weight %</u>
AMMONIUM THIOSULFATE	7783-18-8	N.E.	N.E.	60-65
SODIUM METABISULFITE	7681-57-4	N.E.	5mg/m <sup>3</sup>	5-10
DISODIUM EDTA	MIXTURE	N.E.	N.E.	< 1

## 3. HAZARDOUS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS

Eye Contact: May cause irritation and burns.  
Inhalation: May cause irritation to respiratory tract.  
Ingestion: May be harmful if swallowed. May cause irritation of the gastrointestinal tract.  
Skin Contact: May cause irritation and allergic skin reaction. Low hazard.

## 4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.  
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.  
Ingestion: If swallowed, give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.  
Skin Contact: Flush skin with plenty of water and wash with a non-alkaline skin cleaner. Wash contaminated clothes before reuse. Get medical attention if irritation develops.  
Aggravated Medical Conditions: Asthma or sulfite sensitivities.  
Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as a carcinogen.

## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES

Flash Point: Nonflammable      Flash Point Method: Not applicable      Auto ignition: Not applicable  
LEL: Not applicable              UEL: Not applicable  
Extinguishing Media: Use agent appropriate for surrounding fire.  
Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Unusual Fire And Explosion Hazards: Fire or excessive heat may cause production of hazardous decomposition products.  
Combustion Products: Carbon dioxide, oxides of nitrogen.

**6. ACCIDENTAL RELEASE MEASURES**

Steps To Be Taken In Case Material Is Spilled Or Released: Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment. Avoid contact with skin and eyes. Stop the spillage. Dike the spill. Prevent liquid from entering sewers, waterways or low areas. Absorb spillage in inert material. Soak up with sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal in an approved and permitted landfill. Discharge to sewer requires approval of permitting authority and may require pre-treatment. Contaminated surfaces should be cleaned using water.

**7. HANDLING AND STORAGE**

Precautions To Be Taken In Handling And Storage: Store in a cool, dry, well ventilated area. Keep containers closed. Do not store with incompatible materials. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

Other Precautions: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse containers. Triple rinse before disposal or recycling.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION****PERSONAL PROTECTIVE EQUIPMENT**

Respiratory Protection: Use with adequate ventilation.

Ventilation: Good ventilation of 10 room volumes per hour. Ventilation rates should match conditions of use.

Protective Gloves: Impervious gloves recommended.

Eye Protection: Safety glasses with side shields (or goggles).

Other Protective Clothing or Equipment: Apron

Work/Hygienic Practices: Use good personal hygiene when handling this product. Wash hands after use, before smoking, or using the toilet.

Engineering Controls: facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Exposure Guidelines: See Section 2.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance And Odor: Clear, light yellow solution; ammonia odor.

Solubility In Water: Complete

Boiling Point: >100° C

Specific Gravity: 1.25

Vapor Pressure: 18m Hg @ 20° C

Melting Point: Not applicable

Freezing Point: N.E.

Evaporation Rate: N.E.

Vapor Density: 0.6 (Air = 1)

Percent Volatile: 57.3

Ph: 5.23

Molecular Weight: Not applicable

V.O.C. = 0

Pounds Per Gallon: 10.38

**10. STABILITY AND REACTIVITY**

Stability: Stable

Conditions To Avoid: Incompatible compounds.

Incompatibility: Strong acids, strong oxidizing agents, bases, bleach. Contact with base liberates flammable material.

Hazardous Decomposition Or By Products: May produce oxides of sulfur and ammonia.

Hazardous Polymerization: Will Not Occur

**11. TOXICOLOGICAL INFORMATION****12. ECOLOGICAL INFORMATION****13. DISPOSAL CONSIDERATIONS**

Discharge, treatment or disposal may be subject to Federal, State (provincial in Canada) or local laws.

**14. TRANSPORT INFORMATION**

DOT Class: NOT REGULATED

Hazard Class: NONE

UN No.: NOT APPLICABLE

Packing Group:

Guide No:

Ship Name:

**15. REGULATORY INFORMATION**

TSCA: All ingredients in this finished product are listed on the EPA TSCA INVENTORY.

SARA TITLE III: Ammonium thiosulfate is listed under Sara Title III as a source of aqueous ammonia.

CARCINOGENICITY: NONE OF THE COMPONENTS IN THIS CHEMICAL IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

**SCAQMD Rule 443.1**

Photochemically Reactive: No

Maximum Grams of VOC per Liter: 0 gm/L

Vapor Pressure: 18 mmHg@ 20 °C

**16. OTHER INFORMATION (HMIS)**

Health: 2

Flammability: 0

Reactivity: 0

Protective: B

OTHER ADDITIONAL INFORMATION: The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injuries from the use of the product described herein.



# RA-4 BLEACH-FIX AND REPLENISHER PART B

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Photo Systems, Inc. Product Name: **RA-4 BLEACH FIX PART B**  
 7200 Huron River Drive, Dexter, MI 48130  
 Product Number: **10825, 10826, 10827** Date Prepared: 12/03/2008  
**Customer Information Phone Number:** 1-800-521-4042  
**CHEMTREC®: 24 Hour Emergency Transport Phone Number: 1-800-424-9300**

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical Name</b>	<b>CAS</b>	<b>OHSA PEL</b>	<b>ACGIH TLV</b>	<b>Weight %</b>
FERRIC AMMONIUM EDTA	68413-60-5	50 ppm	25 ppm	40-50
ACETIC ACID	64-19-7	25mg/m <sup>3</sup>	25 mg/m <sup>3</sup>	1-5

## 3. HAZARDOUS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS

Eye Contact: May cause transient irritation.  
 Inhalation: Low hazard for recommended handling.  
 Ingestion: Expected to be low hazard if swallowed. May cause irritation of the mouth, throat, and stomach.  
 Skin Contact: May cause redness and irritation.  
 Signs And Symptoms Of Exposure: Redness of eyes and skin.

## 4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.  
 Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.  
 Ingestion: If swallowed, give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.  
 Skin Contact: Flush skin with plenty of water and wash with a non-alkaline skin cleaner. Wash contaminated clothes before reuse. Get medical attention if irritation develops.  
 Aggravated Medical Conditions: Dermatitis, asthma, and sulfite sensitiveness for working solution.  
 Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as a carcinogen.

## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES

Flash Point: Nonflammable Flash Point Method: Not applicable Auto ignition: Not applicable  
 LEL: Not applicable UEL: Not applicable  
 Extinguishing Media: Use agent appropriate for surrounding fire.  
 Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
 Unusual Fire And Explosion Hazards: Not considered a fire hazard. When involved in a fire, does not contribute any unusual hazards.

Combustion Products: Oxides of carbon and nitrogen are produced by the combustion of this product.

## 6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Spilled Or Released: Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment. Avoid contact with skin and eyes. Stop the spillage. Dike the spill. Prevent liquid from entering sewers, waterways or low areas. Absorb spillage in inert material. Soak up with sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal in an approved and permitted landfill. Discharge to sewer requires approval of permitting authority. Working solution should be able to be flushed to sewer with large amounts of water. Contaminated surfaces should be cleaned using water.

## 7. HANDLING AND STORAGE

Precautions To Be Taken In Handling And Storage: Store in a cool, dry, well ventilated area. Keep containers closed. Do not store with incompatible materials. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

Other Precautions: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse containers. Triple rinse before disposal.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: When this product is used in the intended way, no respiratory protection is anticipated to be necessary. If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator should be worn of organic vapor type.

Ventilation: Good ventilation of 10 room volumes per hour. Ventilation rates should match conditions of use.

Protective Gloves: Latex, rubber, or neoprene waterproof gloves are recommended.

Eye Protection: Safety glasses with side shields (or goggles).

Other Protective Clothing or Equipment: Rubber or plastic apron.

Work/Hygienic Practices: Use good personal hygiene when handling this product. Wash hands after use, before smoking, or using the toilet.

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure: See Section 2.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Reddish brown solution; ammonia odor

Solubility In Water: Complete

Vapor Pressure: 18m Hg @ 20°C

Melting Point: Not applicable

Vapor Density: 0.6 (Air =1)

Molecular Weight: Not applicable

Boiling Point: > 100 °C

Specific Gravity: 1.13

Evaporation Rate: N.E.

Ph: 5.7

V.O.C. is 38.3 g/L or 3.4% or 0.32 lb./gal.

Freezing Point: N.E.

Percent Volatile: 76.77

Pounds Per Gallon: 9.38

**10. STABILITY AND REACTIVITY**

Stability: Stable

Conditions To Avoid: Strong oxidizers, bases.

Incompatibility: Metals such as aluminum, copper, copper alloys, nickel, and zinc. Aqueous solution in contact with aluminum evolves hydrogen.

Hazardous Decomposition Or By Products: May produce oxides of nitrogen, carbon dioxide, carbon monoxide and ammonia.

Hazardous Polymerization: Will Not Occur

Conditions To Avoid: Avoid contact with incompatible materials.

**11. TOXICOLOGICAL INFORMATION****12. ECOLOGICAL INFORMATION****13. DISPOSAL CONSIDERATIONS**

Discharge, treatment or disposal may be subject to Federal, State (provincial in Canada) or local laws.

**14. TRANSPORT INFORMATION**

DOT Class: NOT REGULATED

Hazard Class: NONE

UN No.: NOT APPLICABLE

Packing Group:

Guide No:

Ship Name:

**15. REGULATORY INFORMATION**

TSCA: All ingredients in this finished product are listed on the EPA TSCA INVENTORY.

SARA TITLE III: NONE

CALIF. PROP. 65: NONE

CARCINOGENICITY: NONE OF THE COMPONENTS IN THIS CHEMICAL IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

**SCAQMD Rule 443.1**

Photochemically Reactive: No

Maximum Grams of VOC per Liter: 38.3 gm/L

Vapor Pressure: 18 mmHg@ 20 °C

**16. OTHER INFORMATION (HMIS)**

Health: 1

Flammability: 0

Reactivity: 0

Protective: B

OTHER ADDITIONAL INFORMATION: The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injuries from the use of the product described herein.