

MATERIAL SAFETY DATA SHEET

C-41 RA LR DEVELOPER PART A

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Photo Systems Phone Number: 1-800-521-4042 Emergency Phone: 1-800-255-3924
Product Name: **C-41 RA LR DEVELOPER PART A** Product Number: **10870**
Prepared By: MSDS Author 3 Date Prepared: 08/25/2003
Synonyms:

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	OHSA PEL	ACGIH TLV	Weight %
POTASSIUM CARBONATE	58-40-7	N.E.	N.E.	30-40
TRISODIUM HEDTA	MIXTURE	N.E.	N.E.	1-5
SODIUM SULFITE	7757-83-7	N.E.	N.E.	1-5

3. HAZARDOUS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause irritation and burns.

Inhalation: Mist may cause irritation to respiratory tract. In contact with strong acids or if heated may liberate sulfur dioxide gas which is irritating. Some asthmatics or hypersensitive individuals may experience difficult breathing.

Ingestion: May cause irritation to the gastrointestinal tract. Some asthmatics and sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, diarrhea.

Skin Contact: May cause skin irritation.

Signs And Symptoms Of Exposure: Eye and skin irritation, abdominal pain, vomiting and diarrhea upon ingestion., difficulty breathing.

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Inhalation: If symptomatic, 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: Individuals who are under the care of a physician or have chronic ailments, should consult a physician before using this product.

Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as 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 the surrounding area.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent

contact with skin and eyes. Fire or excessive heat may produce hazardous decomposition products.
Unusual Fire And Explosion Hazards: None
Combustion Products: Carbon dioxide and carbon monoxide

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 is able to be flushed to sewer with large amounts of water upon approval.

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. Triple rinse before disposal.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: If use conditions do not maintain vapors or fumes, use a NIOSH approved half-face cartridge respirator with HEPA cartridges.

Ventilation: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits.

Protective Gloves: Rubber, or neoprene waterproof gloves are recommended.

Eye Protection: Safety glasses with side shields (or goggles) and a face shield.

Other Protective Clothing or Equipment: Rubber or plastic apron or other protective clothing suitable for the exposure risk.

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 Guidelines: See Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Colorless, odorless solution.

Boiling Point: N.E.

Melting Point: Not applicable

Vapor Density: N.E.

Molecular Weight: Not applicable

Vapor Pressure: N.E.

Freezing Point: N.E.

Percent Volatile: 59.38

Pounds Per Gallon: 11.75

Solubility In Water: Complete

Specific Gravity: 1.41

Evaporation Rate: N.E.

Ph: 12.2

Other Properties: V.O.C. = 0

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions To Avoid: High temperatures.

Incompatibility: Strong acids.

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

Hazardous Polymerization: Will Not Occur
Conditions To Avoid: None

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

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: Product contains a mixture, which includes less than .0002 Trisodium NTA. The State of California's Safe Drinking Water and Toxic Enforcement Act of 1986, or Proposition 65 requires the following information. This regulation does not address minimum levels; therefore, even trace amounts of the chemicals included on Proposition 65's list of chemicals known to the State of California to cause cancer or reproductive toxicity must be noted with the "Safe Harbor" wording. WARNING: This product contains Trisodium NTA – known to the State of California to cause cancer, birth defects or other reproductive harm.

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

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 the injuries from the use of the product described herein.

MATERIAL SAFETY DATA SHEET

C-41 RA LR DEVELOPER PART B

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Photo Systems Phone Number: 1-800-521-4042 Emergency Phone: 1-800-255-3924
Product Name: **C-41 RA LR DEVELOPER PART B** Product Number: **10870**
Prepared By: MSDS Author 3 Date Prepared: 08/25/2003

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS</u>	<u>OHSA PEL</u>	<u>ACGIH TLV</u>	<u>Weight %</u>
HYDROXYLAMINE SULFATE	10039-54-0	N.E.	N.E.	20-30

3. HAZARDOUS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause irritation.

Inhalation: Low hazard for recommended handling. May cause irritation to the mucous membranes. In contact with strong acids or if heated may liberate sulfur dioxide gas which is irritating. Some asthmatics or hypersensitive may experience difficult breathing.

Ingestion: Harmful if swallowed. May cause blood effects (methemoglobinemia and anemia). Symptoms include cyanosis, convulsions, and coma.

Skin Contact: Causes irritation. Can cause dermatitis. May be harmful if absorbed through the skin. May cause allergic skin reaction.

Signs And Symptoms Of Exposure: Eye and skin irritation, blue skin, difficulty breathing.

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Inhalation: If symptomatic, 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: Individuals who are under the care of a physician or have chronic ailments, should consult a physician before using this product.

Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as carcinogen.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point: Noncombustible Flash Point Method: Not applicable Auto ignition: Not applicable
LEL: Not applicable UEL: Not applicable

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

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and acid resistant protective clothing with full face piece to prevent contact with skin and eyes.

Unusual Fire And Explosion Hazards: Carbon dioxide, carbon monoxide, oxides of sulfur.

Combustion Products: None

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 is able to be flushed to sewer with large amounts of water upon approval.

7. HANDLING AND STORAGE

Precautions To Be Taken In Handling And Storage: Store in a cool, dry, well-ventilated area. Avoid breathing mist. 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. Triple rinse before disposal.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: If use conditions do not maintain vapors or fumes from working solution below exposure limits, use a NIOSH approved respirator with acid gas cartridges.

Ventilation: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits, typically 10 air changes per hour.

Protective Gloves: 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 or other protective clothing suitable for the exposure risk.

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 Guidelines: See Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Colorless, odorless liquid.

Boiling Point: Not applicable

Vapor Pressure: 18 mm Hg @ 20°C

Specific Gravity: 1.18 g/ml

Melting Point: Not applicable

Evaporation Rate: N.E.

Vapor Density: N.E.

Molecular Weight: Not applicable

Pounds Per Gallon: 9.90

Solubility In Water: Complete

Ph: 2.8

Freezing Point: N.E.

Percent Volatile: 70.18

Other Properties: V.O.C. = 0

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions To Avoid: Extreme temperatures.

Incompatibility: Bases, and strong oxidizing agents.

Hazardous Decomposition Or By Products: May produce oxides of carbon, sulfur, ammonia. Free hydroxylamine is produced when heated, particularly with alkalis.

Hazardous Polymerization: Will Not Occur

Conditions To Avoid: None

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

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.

16. OTHER INFORMATION (HMIS)

Health: 2

Flammability: 0

Reactivity: 0

Protective: C

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 the injuries from the use of the product described herein.

MATERIAL SAFETY DATA SHEET

C-41 RA LR DEVELOPER PART C

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Photo Systems Phone Number: 1-800-521-4042 Emergency Phone: 1-800-255-3924
Product Name: **C- 41 RA LR DEVELOPER PART C** Product Number: **10870**
Prepared By: MSDS Author 3 Date Prepared: 08/25/2003
Synonyms:

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	OHSA PEL	ACGIH TLV	Weight %
CD4	25646-77-9	15 mg/m ³ (dust)	10 mg/m ³	35-50
SODIUM SULFITE	7757-83-7	N.E.	N.E.	1-3

3. HAZARDOUS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause irritation.

Inhalation: Harmful if inhaled. Mist may cause irritation to respiratory tract. In contact with strong acids or if heated may liberate sulfur dioxide gas which is irritating. Some asthmatics or hypersensitive individuals may experience difficult breathing.

Ingestion: Harmful if swallowed. Toxic. May cause burns to the gastrointestinal tract. Some asthmatics and sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, diarrhea.

Skin Contact: Prolonged contact will cause burns.

Signs And Symptoms Of Exposure: Eye and skin burns, abdominal pain, vomiting and diarrhea upon ingestion., difficulty breathing.

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Inhalation: If symptomatic, 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: Individuals who are under the care of a physician or have chronic ailments, should consult a physician before using this product.

Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as carcinogen.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point: Noncombustible Flash Point Method: Not applicable Auto ignition: Not applicable
LEL: Not applicable UEL: Not applicable

Extinguishing Media: Use agent appropriate for the surrounding area.

Special Fire -Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fire or excessive heat may produce hazardous decomposition products.

Unusual Fire And Explosion Hazards: None
Combustion Products: Carbon dioxide, carbon monoxide, and oxides of sulfur.

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 is able to be flushed to sewer with large amounts of water upon approval.

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. Triple rinse before disposal.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: If use conditions do not maintain vapors or fumes below exposure limits, use a NIOSH approved respirator with acid gas cartridges.

Ventilation: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits, typically 10 air changes per hour.

Protective Gloves: Rubber, or neoprene waterproof gloves are recommended.

Eye Protection: Safety glasses with side shields (or goggles) and a face shield.

Other Protective Clothing or Equipment: Rubber or plastic apron or other protective clothing suitable for the exposure risk.

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 Guidelines: See Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Light straw color, sharp sulfur dioxide odor.

Boiling Point: >100°C

Vapor Pressure: 18 mm Hg @ 20°C

Specific Gravity: 1.18/ml

Melting Point: Not applicable

Evaporation Rate: N.E.

Vapor Density: N.E.

Molecular Weight: Not applicable

Pounds Per Gallon: 9.77

Solubility In Water: Complete

Ph: 2.0

Freezing Point: N.E.

Percent Volatile: 54.76

Other Properties: V.O.C. = 0

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions To Avoid: High temperatures

Incompatibility: Strong bases and oxidizers.

Hazardous Decomposition Or By Products: May produce oxides of sulfur, carbon, and nitrogen.

Hazardous Polymerization: Will Not Occur

Conditions To Avoid: None

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

14. TRANSPORT INFORMATION

DOT Class: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

Hazard Class: 8

UN No.: 3265

Packing Group: II

Guide No: 153

Ship Name: PHOTOGRAPHIC DEVELOPER

Limited Quantity Exception may apply to this product, for "inner packagings not over 1.0L (0.3 gal) for liquids and 1.0 kg (2.2 lb) for solids". 173.154 (b) (1). Each package must conform to the packaging requirements of Subpart B of Part 173 and may not exceed 30 kg (66 lb) gross weight. For further information consult the 49 CFR.

DOT Class: CONSUMER COMMODITY, ORM-D

Hazard Class: NOT APPLICABLE

UN No.: NOT APPLICABLE

Packing Group: NOT APPLICABLE

Guide No: NOT APPLICABLE

Ship Name: NOT APPLICABLE

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.

16. OTHER INFORMATION (HMIS)

Health: 3

Flammability: 0

Reactivity: 0

Protective: C

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 the injuries from the use of the product described herein.